3 1761 06275032 8

THE
MATERIAL
USED IN
MUSICAL COMPOSITION

A SYSTEM OF HARMONY

BY

PERCY GOETSCHIUS

VELUT ARBOR ÆVO

Presented to the

LIBRARY *of the*

UNIVERSITY OF TORONTO

from the

ARTHUR PLETTNER

ISA McILWRAITH

COLLECTION

Arthur Plettner

Digitized by the Internet Archive
in 2026 with funding from
University of Toronto

https://archive.org/details/materialusedinmu0000goet

THE MATERIAL
USED IN
MUSICAL COMPOSITION

A SYSTEM OF HARMONY

DESIGNED ORIGINALLY FOR USE IN THE ENGLISH HARMONY CLASSES
OF THE CONSERVATORY OF MUSIC AT STUTTGART

BY

PERCY GOETSCHIUS

AUTHOR OF

EXERCISES IN MELODY-WRITING; THE THEORY AND PRACTICE OF TONE-RELATIONS; MODELS OF THE PRINCIPAL MUSIC FORMS; THE HOMOPHONIC FORMS OF MUSICAL COMPOSITION; APPLIED COUNTERPOINT; ELEMENTARY COUNTERPOINT; LESSONS IN MUSIC FORM; ETC.

TWENTY-FOURTH EDITION
BEING THE TENTH PRINTING OF THIS
COMPLETELY REMODELED AND REWRITTEN
NEW (FOURTEENTH) EDITION

G. SCHIRMER (Inc.), NEW YORK

LIBRARY
DEC 0 3 2003
UNIVERSITY OF TORONTO

Copyright, 1889, by G. Schirmer
Copyright, 1895, by G. Schirmer, Inc.
Copyright, 1913, by G. Schirmer, Inc.

23878

Copyright renewal assigned, 1923,
to G. Schirmer, Inc.

Printed in the U. S. A.

PREFACE TO THE NEW (FOURTEENTH) EDITION.

THE first draft of this book was made in 1879, while the author was teaching, and still studying, at the Conservatory of Music in Stuttgart, Germany. It was many times rewritten before being first issued in 1882, in Stuttgart. In this original form it was used until 1889, when, in completely remodeled form, it was published by Mr. Schirmer in America. In 1895 it was again partially revised. For the present edition it has been again thoroughly revised, rearranged and re-written.

The object of this latest revision was, to record the experience gathered during the past twenty years of uninterrupted teaching; to correct prolix and clumsy diction; to increase the exercise-material, especially in melody harmonization; and to introduce and systematize, as far as possible, the novel experiments and achievements of modern harmonic thought. Also, to present the book, as a whole, in a more attractive and useful form.

PERCY GOETSCHIUS.

NEW YORK, *October, 1912.*

EXTRACTS FROM THE PREFACE
TO THE FIRST AND SECOND EDITIONS.

THE author is not inclined to the sanguine belief that such a subtle and imaginative art as that of composition can be acquired by those not possessed of the innate faculty, by simply studying from books. But it is certainly true, that even those who are born to compose are not exempt from the necessity of a careful training, systematic arrangement and studious development of their ideas. It is therefore essential that the musical student be guided in his studies by some method in which the primitive laws of the art (as instinctively recognized by genius), and the subsequent experiences and inventions of distinguished minds (as transmitted through classic productions), are comprehensively and truthfully recorded; and that method which most lucidly, concisely and *systematically* imparts such information is the one from which the scholar will derive the greatest benefit.

In opposition to the still popular impression that such books as these are written only for the use of composers, and that only those who intend or hope to become composers ever need to study harmony, the author avers his belief that none of the many branches of musical discipline is so indispensable as that which treats of the Science of music; and he therefore wishes to be understood as having prepared this treatise *more particularly for the musician in general, than for the very small minority of composing musicians.*

* * * * *

The students in whose hands this book is to be placed, are assumed to have *completely* mastered all the elements of notation; to be reasonably expert in piano playing, and in reading at sight (for which the easier Sonatas of Mozart or Haydn may be offered as tests); and to be somewhat familiar with classic literature. If this is not the case, they are urged to devote a few months to the acquisition of this indispensable knowledge before commencing harmony; *for neither from this nor from any other book can the study of harmony be successfully pursued by any student whose attention is still partly engrossed by the rudiments of music.*

This method of harmony is based upon the method of Prof. Dr. Immanuel Faisst, for a detailed account of which the author is indebted to the interest and kindness of Dr. Faisst himself. (See the following Preface.)

The present author's knowledge of harmony was obtained solely through this channel, and he takes pleasure in avowing that what he has since learned is due to the influence of Dr. Faisst's incomparable mode of instruction.

But in the preparation of this book the course of instruction received by the author has undergone many, in part radical, modifications. * * * * Chief among these,—as defining the main standpoint assumed in this method in distinction to all others, and as indicating the source from which the laws of harmonic action and logical tests of euphony are deduced, — are paragraphs 12,[*] **13, 18, 24,** 34, 46*c*, 59, 68, 69, **70**, 78, 101, 171, **198, 259,** 262, 267, 302, 307, 315, 323, 339, 346, 358, 376, 390, 405, 414–419, 425, 427, 462. These, and the fundamental laws of melody; the treatment of melody-harmonizing; the treatment of the altered and mixed chords; and the fundamental laws and processes of modulation, — the author believes to have originated.

This second, re-written edition differs from the first one in the following respects: The different subjects of study have been more distinctly and methodically systematized; the explanatory notes and illustrations are more copious; and the exercises have been made easier, so that every ordinarily gifted scholar may have the gratification of correctly solving them, with a fair amount of application and patience. * * * The course of study is divided into Lessons (weekly, or semi-weekly) in such degrees as the author has found to be most convenient in his own practice; but it is left to the judgment of the teacher to modify this division as occasion prompts. It will oftener be found necessary to devote the time of two lessons to one alone, than to merge two lessons in one: haste is of little avail in the study of harmony. Each lesson terminates with an exercise, or a set of exercises, and a synopsis of the fundamental principles of the subject under treatment. The author recommends working out *all* the given basses and other exercises, upon the ground that "practice will make perfect." The adoption of the given positions (upper figures) facilitates the solution of the basses very materially, of course, and they are really intended only for the use of weaker pupils. Those who are ambitious to profit most by the given exercises will *simply ignore all such auxiliaries*, *i.e.*, will copy out the given basses without paying any attention to the upper (position) figures. The fundamental principles should be memorized.

The references to other paragraphs (which may appear at first glance unnecessarily profuse) have been made with the studied purpose of impressing certain points more deeply upon the scholar's mind, by dint of frequent repetition. Therefore, he is required to make conscientious use of them, despite the slight interruptions they may cause. In the other references (to other works) the author has limited himself as much as possible to such compositions as are accessible to every scholar, and, with very rare exceptions (in favor of some particularly striking examples), to pianoforte music alone. The printed examples, of which those not otherwise marked are original, are the more pointed illustrations of the matter in question, and are so copious that the references, if unobtainable, may be dispensed with.

---

[*] These paragraph numbers refer to the present, latest, edition.

PREFACE OF DR. FAISST.

The method of harmony upon which the present work of Mr. Percy Goetschius (published with my assent) has been based, was originally prepared by me in 1847, for the purpose of instruction in a musical Institute; and was subsequently — certain parts repeatedly — revised. After having used it in this manner for a period of ten years, the establishment of the Stuttgart Conservatory of Music, and my acceptance of the proffered position among its faculty, gave me occasion for a new and more extended application of my method, by reason of which it naturally grew more and more complete; albeit I gave the lessons without the aid of manuscript notes, and extemporized the examples and exercises directly upon the blackboard. In one of these Conservatory-courses, my system of instruction was written down as accurately as practicable in text and notes by a scholar who was afterwards engaged in my stead as teacher of the branch in question, and who gave the lessons according to his manuscript copy. Through a similar medium, Mr. Goetschius, to whom I subsequently had the pleasure of imparting instruction personally in the higher branches of composition, came into possession of this part of my method.

As I have been unable as yet for lack of time, and may possibly never find time, to elaborate this branch of study consistently with my wishes for publication, I would not oppose the author of the present work in his intention of preparing a system of harmony, which, though based upon the method which I have applied, contains various modifications and original additions. But, on the other hand, it may be no more than just that I should, in this place, support my right of invention and application to such subjects and such modes of treatment as, to the best of my knowledge, distinguish my method from prior modes of instruction; especially in view of the possibility that parts of this method which are peculiar to myself, might later be adopted in other — perhaps even German — didactic books.

The points which I believe I have originated, are as follows:

The adoption of an "absolute" figuring for all the chords. That is, a designation in numbers, which, without the necessity of a written bass, indicate the species of the chords and their exact situation in the key; not only in reference to their roots, but also to their denomination (as triad, chord of the seventh or ninth), and to the grade of inversion; — for illustration, $\overset{7}{\mathrm{II}}_1$, ${}_0\overset{9}{\mathrm{V}}_3$. Further, the noting down of exercises in numbers according to this system, to be worked out in different keys.

The abbreviated denomination of all the chords, according to the numbers used in this "absolute" figuring; *e.g.*, the Two-seven-one.

The regard paid to the eminent influence which in all chords (above all in the concords) the condition of the soprano exerts upon the admissibility and effectiveness of the chord-progressions; and, in consideration of this influence, the investigation and judgment of all the diatonic harmonic progressions, with regard to every possible soprano-position; furthermore, in the same connection, inciting and guiding the scholar to a melodious progression of the soprano, in every kind of exercise.

The institution of rules for voice-progression, which are not limited to a succession of two tones, but apply to the connection of a protracted series of tones.

The application, throughout, of each part of the harmonic material, in a threefold manner:

(*a*) In working out figured basses;

(*b*) In the invention, by the scholar, of original phrases and periods; in both cases with special regard to the acquirement of these simple, elementary forms in regular construction, — for which reason, the suitability of the momentary chord-material for semi-cadences is also indicated;

(*c*) In harmonizing given melodies, chiefly in these elementary forms, or in other related forms proceeding from them.

The determination of the relations existing between the laws of rhythmic progression, and the prolongation or change of chords and bass tones.

Many rules of voice-progression for special combinations of chords; particularly in reference to covered, interrupted, and oblique consecutive octaves and fifths.

The distinguishing between different kinds of parallel fifths, according to their size, and the condition of the voices.

Precise definition of the harmonic relations and general use of the different six-four chords of the key.

Thorough exposition of the free resolutions or progressions of discords, and their use; also the free resolutions of suspensions.

Regulations respecting the practical application of the diminished triads, and their inversions; of the chords of the ninth, and inversions; the chord of the seventh upon the 7th step in major, with its inversions; of the altered and mixed chords.

The derivation of the chord of the seventh upon the 4th step, from the chord of the ninth upon the 2nd.

The distinction between, and separate treatment of, diatonic modulation (based upon the fundamental principle that certain chords are *common* to different keys) and chromatic or enharmonic modulation; diatonic modulation to remote keys, direct and indirect; precise exposition of the different chromatic chord-progressions, and their modulatory significance.

Rules for determining the admissibility of cross-relations.

Detailed treatment of harmonic and mixed figuration.

The transition from the harmonic (homophonic) style of writing to the polyphonic, by means of inharmonic tones.

All these characteristics, which I believe to be peculiar to my method, have been adhered to with more or less fidelity by Mr. Goetschius in the present work. But, while it would be groundless to regard each individual point in the presentation and treatment of these subjects in this book as proceeding from me (inasmuch as Mr. Goetschius has deviated in many respects), it would be still less just to overlook what he has done to complete certain parts of my method, and present it in a fitting shape for practical instruction; besides the addition of those parts, in reference to which he in his preface lays just claim to having advanced original views, the significance of which will not be denied even by those who are unable promptly and easily to appropriate them.

May this book then, which has been prepared with so much intelligence and assiduity, prove to be a successful guide to very many in their musical studies.

DR. IMMANUEL FAISST.

STUTTGART, *October, 1882.*

TABLE OF CONTENTS.

PART I.

DEFINITIONS AND RULES.

Page
Rhythm 1
Modes of Accentuation 2
Melody 3
The Key 3
The Scale 5
Rules of Melody 6
Harmony. — Intervals. 10
Consonance and Dissonance 12
Page
Chords 13
The Voices or Parts 15
Duplication of Chord-Intervals 16
The Positions of a Chord 17
Rules of Part-writing 18
The general Exception 20
Qualification of Tones, Chords, and Chord-intervals. 21

PART II.

THE SUCCESSION OR CONNECTION OF CHORDS.

Division A. Concords.

Section 1. Triads.

The Tonic Triad, I. — The Dominant Triad, V 22
The succession I–V 22
The reversed succession, V–I 24
The Perfect Cadence 24
The Phrase 25
The Subdominant Triad, IV 28
Connection of the Subdominant and Dominant Triads 31
The Principal Triads in the Minor Mode. . . . 33
The Subordinate Triads in Major 35
The Second-dominant Triad, II. 36
The Submediant Triad, VI 39
The Mediant Triad, III. 41
The Subordinate Triads in Minor 43
The Period-form 44
The harmonizing of Melodies. Principal triads. 45
Melodies, with Subordinate triads 47
The Inversions of the Triads 49

Section 2. The Chords of the Sixth.

The Principal Chords of the Sixth. 51
The Subordinate Chords of the Sixth 54
Consecutive Chords of the Sixth 56
Triad and 6th on the same Bass tone 57
Melody harmonizing. Chords of the sixth. . . 60
Harmonizing successive tones together 61

Section 3. The Six-four Chords.

The connections of Six-four Chords. First connection 63
Second connection 64
Third connection 65
The Plagal Cadence 68
Six-four Chords as Passing-chords. 68
Melody harmonizing. Six-four chords. 72

Division B. Discords.

PAGE
The Classification of the Discords 74
The Resolution of a Dissonance 74

Section 1. The First Class of Discords.

A. The Chord of the Seventh upon the Dominant 75
The Introduction of the $\overset{7}{V}$ 76
The Inversions of the Dominant-Seventh-Chord 78
Irregular Resolutions of the Dominant-7th-Chord 81
The Passive Resolution 82
Other Irregular Resolutions 83
B. The Incomplete Chord of the Dominant-seventh 85
(The II in Minor) 86
Melody harmonizing. Dominant seventh 88
C. The Chord of the Ninth upon the Dominant 90
Introduction and Resolution of the Five-nine 91
The Complete Inversions of the Five-nine 93
D. The Incomplete Chord of the Dominant-ninth 94
PAGE
The ${}_{o}\overset{9}{V}$ in the Major Mode 94
The ${}_{o}\overset{9}{V}$ in the Minor Mode 96
Melody harmonizing. Dominant-ninth 99

Section 2. The Discords of the Second Class.

A. The $\overset{7}{II}$ and its Inversions 102
B. The $\overset{7}{IV}$ and Inversions 103
The Digression into the next higher Class 104

Section 3. The 3rd and 4th Discord-Classes.

A. The Discords of the Third Class 107
Irregular Passive Resolution 108
B. The Discords of the Fourth Class 110
The $\overset{7}{III}$ in Major 110
The III, $\overset{7}{III}$ and $\overset{9}{III}$ in Minor 111
Table of the Harmonic System of a Key 113
Sequences 113
Harmonizing of Unfigured Basses 115

Division C. The Altered and Mixed Chords.

Section 1. The Altered Chords.

A. In Major 117
B. In Minor 121

Section 2. The Mixed Chords.

A. In Major 126
B. In Minor 129

PART III.

MODULATION.

Section 1. Key-relations.

Key-relations 131
General Rule of Modulation 132

Section 2. The process of Modulation.

Fundamental Rule of Modulation 135
Altered Chords as modulatory mediums 137
Extraneous Modulations (1. Through Next-related Keys) 138
Extraneous Modulations (2. Direct) 140
The Modulatory Stride 140
Modulation to the Opposite Mode 141
Modulation at Cadences, and in Sequences 145

Section 3. Chromatic Progression, as a Special modulatory agent.

Rules of Chromatic progression 149
Chromatic Chord-progressions 150

Page

Section 4. Enharmonic Modulation.

Simple Enharmonic Changes with the Dim. Seventh 159
Other Resolutions of the Chord of the Dim. Seventh 161
Other Enharmonic Chords 164
Compound Enharmonic Changes 166
Page
Pivotal Modulations 167

Section 5. The Harmonizing of Melodies, with Modulations.

1st. Melodies with Indicated Modulations . . 171
2nd. Melodies with Intimated Modulations . . 172
3rd. Melodies with Optional Modulations . . . 174

PART IV.

THE INHARMONIC (NON-HARMONIC) INTERVALS.

The Inharmonic (Non-harmonic) Intervals . . 178

Section 1. The Organ-point.

Hints and Directions 180
The Pastoral Organ-point 183
Irregular Organ-points. — The Mediant Organ-point 185
The Short Organ-point 186

Section 2. The Suspension.

Hints and Directions 189
Harmonic Suspensions 190
Suspension-Chords 191
Irregular Resolutions of the Suspension 193
Irregular Introduction of the Suspension . . . 197
The Harmonizing of Melodies 199

Section 3. The Anticipation.

Hints and directions 201
Harmonic Anticipations 202
Syncopation 203
The Irregular Anticipation 207

Section 4. The Neighboring-notes.

The Neighboring-note proper, as "Local" Embellishment 209
The Passing-notes, as "Progressive" Embellishment 211
Embellished Melody, and Running Parts 212
Embellished Harmony 215
Irregular Neighboring-notes. The Appoggiatura 219
The Double-neighbor 220
Harmonic Embellishment, continued 222
Other Licences 225
The Harmonizing of Embellished Melodies, and Basses 231
Wandering Harmonies. Modulation with Inharmonic tones 234
Warning Note 239
Analysis 239

PART V.

VOCAL AND INSTRUMENTAL HARMONY WITH AN IRREGULAR NUMBER OF PARTS (FEWER OR MORE THAN FOUR). STYLE.

Section 1. Vocal Harmony.

Three-part Harmony 241
Two-part Harmony 242
Five- to Eight-part Harmony 244

Section 2. Instrumental Harmony.

Figuration or Broken Chords. Accompaniments 246
Harmonic Figuration 246
The Registers of the Figural part 247
Hints and Directions 249
Melodic (or mixed) Figuration 254
Two-part Figuration 255
One-part Figuration 256
Irregular Part-writing 258
Figural Motives with Supplementary tones . . 259
Rhythmic Figuration 260
Double, Compound and Complex Figuration . 262
Triple and Quadruple Figuration 263
Paraphrasing; or simple Variation 265

PART I.

DEFINITIONS AND RULES.

1. Music is the association of tones.

A tone is a fixed sound. The point in the domain of sound at which it is fixed is called its pitch.

Tones may be indicated in a number of ways. The oldest and most common way is to denote the tones by *letter*. For this purpose the first seven letters of the alphabet are used. This is all that is required, as the key contains only seven tones. Names for all other tones are obtained by inflecting these seven letters with accidentals (sharps and flats).

Tones are also indicated by *notes*, placed upon the staff. The identity of the tone (its letter-name) is fixed by a letter-sign, called the clef, placed upon some line of the staff.

Tones are also indicated by *numbers* indicating the vibratory rapidity which defines their pitch (*e.g.*, middle C = 261 pulses in a second); and also by numbers indicating their place in the scale (as scale-steps).

The study of musical material embraces the consideration of the three essential factors of music: Rhythm, Melody and Harmony.

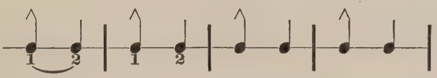
Rhythm.

2. Rhythm is engendered by the motion of the musical picture, and manifests itself in the association of differing time-values. It treats, first, of the division of the time required for the expression of a musical idea into absolutely regular and equal units, of which the most convenient and commonly adopted representative is the "beat." Secondly, rhythm treats of the grouping of a certain number of these units or beats in symmetrical measures. This grouping is effected by a regularly recurring emphasis, called the accent, always laid upon the first unit of each group.

The beats are absolutely similar in duration, but differ in quality, some being heavy and others light. This is the vital principle of rhythm, as it establishes a distinction between the beats, and gives the otherwise monotonous and meaningless series of similar strokes a recognizable form.

3. The rhythmic groups consist of either **two** or **three** units or beats, and constitute the simple measures of written music. When there are two beats in a group (heavy and light beats in regular alternation) the rhythm is **duple:**

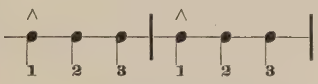
Ex. 1*a.*



(heavy-light |).

When there are three beats in a group (an irregular alternation of one heavy and two light beats) the rhythm is **triple:**

Ex. 1*b.*



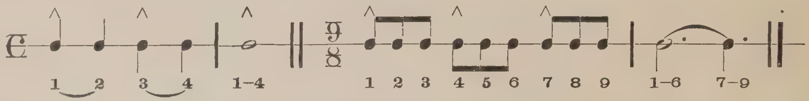
(heavy-light-light |).

a. The following are examples of *simple* groups or measures, in duple and triple rhythm: $\frac{2}{4}$ (*i.e.*, a group of *two* units of the value of quarter-notes); $\frac{3}{8}$ (a group of *three* units of the value of eighth-notes); $\frac{2}{2}$ or 𝄵 (alla breve); $\frac{3}{4}$; $\frac{3}{2}$, etc.

b. *Compound* measures are multiplications of these simple groups. For instance, two groups in duple time: $\frac{2}{4}+\frac{2}{4}=\frac{4}{4}$ or 𝄴; or $\frac{3}{8}+\frac{3}{8}=\frac{6}{8}$; $\frac{3}{8}+\frac{3}{8}+\frac{3}{8}=\frac{9}{8}$; $\frac{3}{4}+\frac{3}{4}=\frac{6}{4}$ (not to be confounded with $\frac{3}{2}$), etc.

c. Simple measures have only one accent; compound measures have an accent for each rhythmic group that they contain:

Ex. 2.

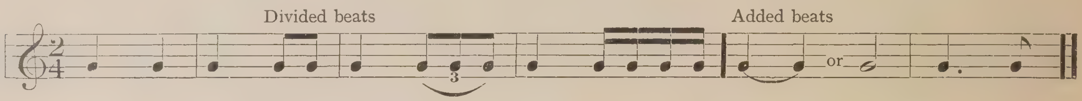


d. The only difference between simple and compound measure is, obviously, the number of *bars*. $\frac{4}{4}$ measure is precisely the same as $\frac{2}{4}$ with the alternate bars omitted.

The first accent of a compound measure is the strongest, as the exponent of the first of the two or three groups which compose the measure, and is called the primary accent; the other accent or accents are secondary.

e. Diversity of time-value is obtained by dividing beats, or by adding them together. The division of a quarter-note into two equal fractions gives eighth-notes; into three equal fractions, the triplet; into four fractions, sixteenth-notes. The addition of two quarter-notes gives a half-note. A dot lengthens a note one-half its time-value; and so on.

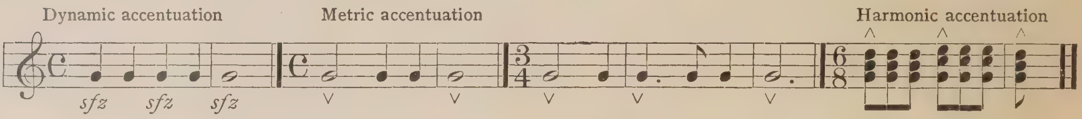
Ex. 3.



Modes of Accentuation.

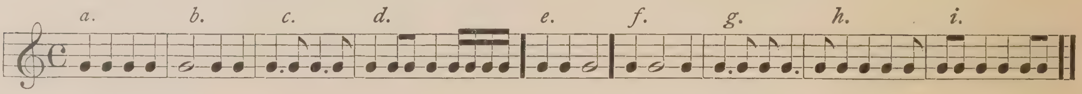
4. The accent which falls upon the first unit of each group is called the natural or grammatical accent, and is fixed by counting. But an arbitrary stress may be imparted to any individual beat, for diversity of effect. These optional emphases are not "accents," but "accentuations," and may be produced as follows; 1st, *dynamically*, by simple emphasis; 2nd, *metrically*, by a tone of longer duration, representing the sum of two or more beats or fractions of beats; and 3rd, *harmonically*, by a change in the combination of tones. Thus:

Ex 4.



5. Those rhythms are most natural and comprehensible, in which the dynamic and metric accentuations coincide with the *natural* accent, — that is, fall upon the first unit of a rhythmic group; if not constantly, at least for such a period and in such frequency as to render the rhythmic intention unmistakable. For example:

Ex. 5.



Measures *b*, *c*, *d*, are satisfactory in effect, because the longer notes coincide in position with the natural accent. This arrangement of time-values, — the heavier notes at the heavy beats, or the lighter notes at the lighter beats, — is therefore known as *regular* rhythm.

Measure *a*, consisting of uniform time-values, is regular, because there is no evidence of irregularity.

Measures *f*, *g*, *h*, *i*, are illustrations of *irregular* rhythm, because the arbitrary metric accentuations do not confirm the natural accents; that is, the heavier notes occupy lighter beats, or fractions. Such shifting of the natural rhythm is generally known as syncopation, and it is extremely effective when recognizable as such. In order to be understood, it should appear in connection, or alternation, with sufficiently marked *regular* rhythm. See par. 390, 392.

Measure *e* is slightly irregular; the primary and secondary accents are exchanged.

Melody.

6. Melody is any succession of single tones. The quality of the melody depends upon the degree of congruity or affinity of the tones for one another; also upon the degree of uniformity in the grouping of the tones, both with regard to pitch and to time-values; also upon other, scarcely definable, conditions that do not concern the beginner. The fundamental requirement is, no doubt, that of *relation;* those tones which belong together will be most likely to sound well together.

7. A melody is a *line of tones;* a line whose successive points are fixed *sounds*, which define its flexions, its rising, falling, poising, in various rhythmic forms. Melody is therefore the same element in music that the line is in a picture or drawing of any character, simple or complex. These tone-lines determine all the tangible impressions imparted to an intelligent mind by the music; and they represent so nearly the sum of what is indicated by a musical sentence, that it may be said that the lines (that is, the melodies) *are* the music. With this conception of music, as a system of tone-lines, the student can not become too deeply impressed; for he must learn, sooner or later, that whatever he may desire to express in tones, must be conveyed through the *lines* of tone. He can assure himself of this by listening thoughtfully to any example of good music and analyzing his mental attitude, — observing what it is that gives him definite impressions of the music. Whether consciously or not, he will discover that he is tracing the tone-lines. It is this fact of musical formulation that gives to melody its supreme importance, and makes rhythm and harmony subservient.

The Key.

8. A key is a family of tones. The term "family" is used advisedly, because it suggests a simple and exact analogy. The key is a group of related tones; tones which inevitably congregate, in obedience to the law of relation or affinity.

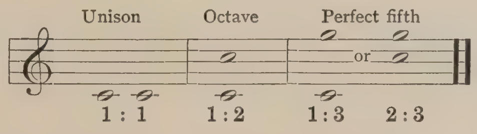
9. The vital principle of musical art is **Tone-relation.** Every association and progression is defined by it. A solitary tone has no more meaning than a single letter or character of speech has; both acquire significance only upon association with other characters, whereby a relationship is established, involving mutual obligations and actions.

10. The classification of the grades of tone-relation is not a matter of conjecture or opinion, but may be undertaken with mathematical exactness, because each tone represents a definite number, — the number which indicates the velocity of the tone-waves that fix the pitch of the tone.

11. The fullest degree of tone-relation is exhibited by two tones that have exactly the same velocity of vibration. This is the *unison;* the numbers, and therefore the pitch, are identical; the vibratory ratio is 1 : 1, and it is quite impossible to distinguish the tones from one another by pitch.

The next, somewhat less complete, degree of relation is exhibited by two tones produced by a certain velocity and exactly double that velocity. This is the *octave;* the vibratory ratio is the simplest imaginable, 1 : 2; and though there is an actual difference in pitch, it is not entirely easy to distinguish the tones from one another. These tones are therefore regarded and treated in music as practically identical, as the same musical *factor* (in the chord, the key, — sometimes even in the tone-line), manifesting a distinction but not a difference.

The next, somewhat more remote, degree of relation is exhibited by two tones whose vibratory velocities represent the next simplest ratio, 1: 3, or 2: 3. This is the so-called *perfect fifth.* There is not only a difference in pitch, but it is easy to distinguish the tones from one another,—in fact, not possible to confound them. The personality of each is complete, the result is two *actually distinct factors*, which, nevertheless, constitute the *most intimate affinity* that can exist between actually different tones.



12. It is with this significant tone-relation, the perfect fifth (to which the name *harmonic degree* might be given), that nature initiates the entire system of tone-combination. The unison and octave are used for duplication and extension into higher or lower registers, but the perfect fifth is the basis of generation. It is the necessary simple point of departure for every association and every action in the domain of tone; from it radiates the whole tone-complex, like a web, ramifying and extending infinitely. It is this interval which determines the tones that must assimilate and congregate (in a sense, gather as a clan) in the group or family of tones called a key.

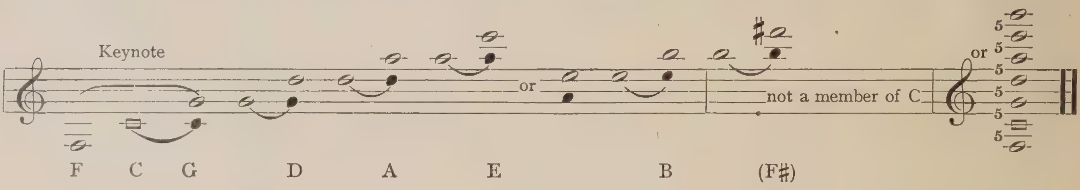
The perfect fifth may be located on the keyboard by counting upward eight "keys," or half-steps; thus from *c*: c–c♯–d–d♯–e–f–f♯–g. The upper tone must, moreover, be the fifth letter from that of the lower tone. Thus, A♭–E♭ (not D♯); B–F♯ (not G♭).

13. The key or family of C (for example) is formed by beginning with C (as head of the family) and defining his two nearest relatives, — the perfect fifth both upward and downward, — the tones G and F. The process of tone-generation operates upward, and therefore the next member of the family will be the perfect fifth upward from G, — the tone D. (The lower perfect fifth of G confirms the keynote C). The next member is the upper fifth of D, the tone A; then its fifth, the tone E; then the fifth of the latter, the tone B. The following perfect fifth, the related tone of B, is F-sharp.

There is no particular reason why this tone should not be a member of the family of C, excepting that it conflicts sharply with the F-natural, whose relation to the keynote C is too intimate to be overpowered by the remote relative, F-sharp. The observant student is surely aware that this F-sharp, while not a legitimate *member*, is nevertheless a very frequent *guest* in the family of C.

Excluding the F-sharp, because of its hostility to the closely related F-natural, this key will be found to contain the following seven tones:

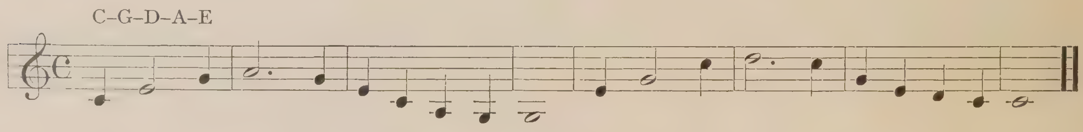
Ex. 6.



14. The nucleus of the key is formed by the five relatives, C, G, D, A, E, — five contiguous tones in the chain of perfect fifths. In this nucleus the lowermost tone is the keynote. Any combination of these five tones results either in consonance, or the mildest dissonance (whole step; for example, C and D together); nowhere does a harsh dissonance appear. These are the five tones of the most common 5-tone scale (the Scotch scale, for instance).

These nucleus-tones are the ones used by **Beethoven** in the first period of the theme of his "Leonore" overture (probably with singularly true musical instinct):

Ex. 7.



To these five nucleus-tones a perfect fifth is added at each end (F below the C, and B above the E). These additional tones result, by combination with the others, in the more harsh dissonance of the diatonic half-step (F–E, and C–B), and beyond this the "family," as a body of reasonably harmonious members, apparently can not extend. Hence the limitation of a key to seven members, as shown in Ex. 6.

15. Any tone may be adopted as keynote, and the members of its key or tone-family found, as above, by adding one perfect fifth below, and five successive perfect fifths above. Thus, for the key of A♭: — A♭–D♭–E♭–B♭–F–C–G. For the key of E: — E–A–B–F♯–C♯–G♯–D♯.

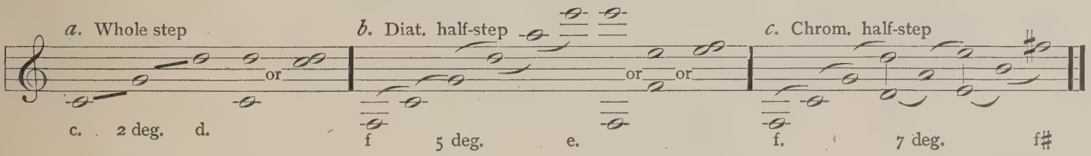
All keys have the same series of seven letters, beginning at different points. For the key of C it is the established custom to use *plain* letters; all the other keys require the inflection of one or more of the letters (by sharps or flats), and the number of such inflections defines the signature of the key. In the key of A♭, for instance (see above), four letters are flatted, therefore the signature of A♭ is four flats. In the key of E four letters are sharped, hence its signature is four sharps.

THE SCALE.

16. *a.* **A scale is any succession of whole steps and half-steps.**

b. The whole step, as seen, is the difference in pitch between tones of the key which lie two harmonic degrees (perf. fifths) apart, — reduced by the octave to closer proximity; Ex. 8*a*. The diatonic half-step is the difference in pitch between tones that lie five harmonic degrees apart; Ex. 8*b*. The chromatic half-step is seven harmonic degrees removed; Ex. 8*c*.

Ex. 8.

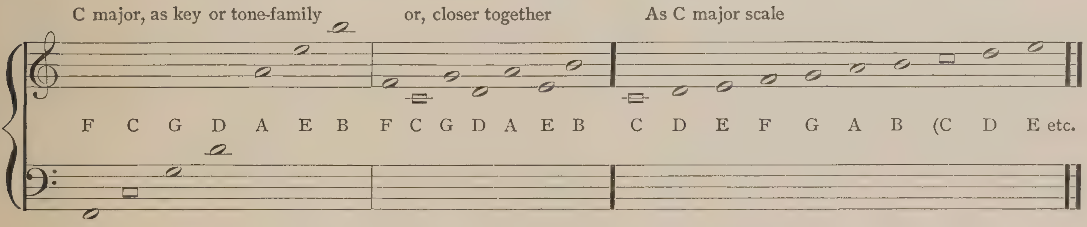


(The term *diatonic* refers to the scale, and means "agreeing with the scale." The term *chromatic* refers to the inflection of a scale-step by an accidental.)

17. There are therefore as many possible scales as there are possible combinations of the whole and half-steps. But of all these varieties, there is only one scale that is *natural* (that has its origin in a *natural* arrangement of tones), and that is the so-called **major scale.**

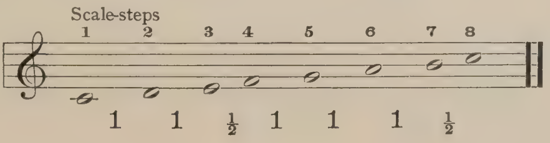
18. The major scale is not "constructed," but is derived from a natural source, — from the key or original tone-family. **The major scale consists of the seven tones of the key, arranged in progressive pitches;** that is, reduced by the octave to successive close proximity. Thus (C major):

Ex. 9.



19. When thus defined, by direct derivation from the key, the natural (or major) scale is found to represent the following succession of whole and half-steps: whole steps between scale-steps 1–2, 2–3, 4–5, 5–6, 6–7; half-steps between scale-steps 3–4, 7–8. Thus:

Ex. 10.



The reason for this apparently inexplainable arrangement of steps is in reality very simple: — the tones simply assume these pitch-spaces when the original key-members are thus reduced to scale-form; it is not devised as a scale, but "comes out that way" by agreement with the tone-family. No further demonstration need be sought.

20. The scale-tones are called steps, or, rather, *scale-steps*; and are numbered upward from the keynote. Their names are as follows:

a. The *first*, and most important, step is called the *Tonic* (or keynote);

The next in importance is the *fifth* scale-step (the perfect-fifth derivative from the tonic), called the *Dominant;*

The next in importance is the perfect fifth below the keynote, the *fourth* scale-step, called the *Subdominant.* These three tones, tonic, dominant and subdominant, are the *principal members* of the key and scale. The rest are subordinate, and their names, in the order of importance, are as follows:

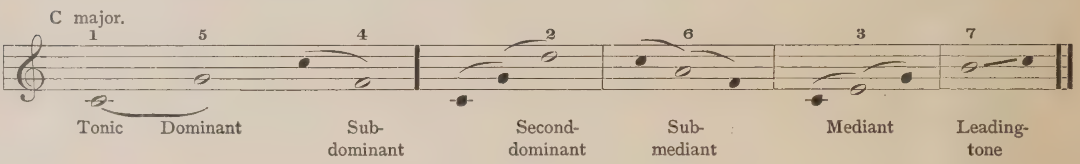
b. The *second* scale-step is the perfect-fifth relative of the dominant; in a sense, "the dominant of the dominant," — wherefore it is called the *Second-dominant;*

The *sixth* scale-step lies midway between the tonic and subdominant, and is therefore called the *Submediant;*

The *third* scale-step lies midway between tonic and dominant, and is called the *Mediant;*

The *seventh* scale-step is called the *Leading-tone.*

Ex. 11.



REVIEW OF FUNDAMENTAL PRINCIPLES.

Rhythm is diversity of time-values, and of dynamic force.

There are only two species of beat-groups: duple and triple.

Rhythm is regular when the heavier (longer) notes appear on the heavier pulses, and vice versa.

Melody is a succession of single tones, a tone-line; and the most significant element in music.

A key is a family of seven tones, associated in harmonic degrees (perfect fifths).

The only true, natural, scale is the so-called major scale, which is derived from the key by placing the tones in progressive pitches.

The principal tones of a scale or key are the tonic, dominant and subdominant.

EXERCISE ONE.

a. Write out every key in its original form, as in Ex. 6.
b. Write out every major scale, first as in Ex. 10; then as in Ex. 11, attaching the name to each scale-step.

Rules of Melody.

21. It may seem impossible to establish definite rules for the mechanical invention of a melody, because this pre-eminent musical element is the mysterious product of many and varied natural principles, whose subtle interactions must be perceived by instinct rather than by reason. Nevertheless, there certainly are general laws and rules of melodic movement which can and must be learned. As stated in par. 6 (which review), the most vital requirement is that of *relation.* Hence the first rules of good melodic conduct:

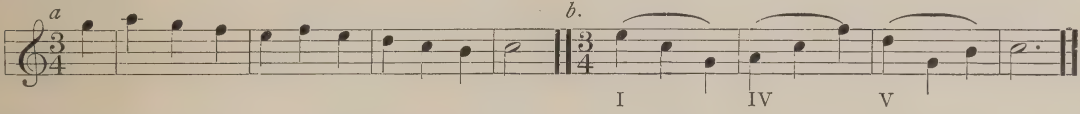
22. *a.* A melody may follow the line of a Scale. And:

b. A melody may follow the line of any good (important) Chord.

(The scale is explained in par. 18; for the definition of the chord, see par. 43, 47. All of the rules of melody will be found in thorough detail in the author's *Exercises in Melody Writing.*)

For example:

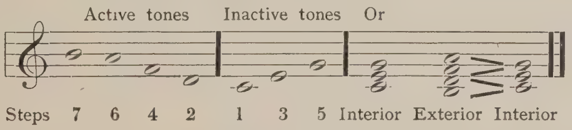
Ex. 12.



23. There are, however, some limitations to each of these rules. In following the scale-line, it is necessary to consider the natural inclination of certain scale-steps to rise or fall. These tendencies are partly inherent in the relations of the several scale-steps to their keynote, and are partly due to impulses acquired through association with other tones. The former (natural) tendencies are defined as follows:

24. *a.* The seven tones of the scale or key may be divided into two classes: into **Active** tones, which possess a pronounced inclination to proceed in a certain direction; and **Inactive** tones, which possess no melodic tendencies themselves, but represent the aim and fulfillment of the tendencies of the others.

Ex. 13.



b. The inactive tones are those which form the chord of the key, or which are generated (as "overtones") out of the keynote, and which therefore share with it the attribute of *rest* which distinguishes the keynote from all the other tones of the key. The inactive tones lie, so to speak, at the center of harmonic repose.

c. The active tones are the other four scale-steps, which lie *outside* of this harmonic center, and therefore tend, more or less urgently, to regain the condition of repose. They thus simply respond to the same law of gravity which governs the swinging, and final stopping, of a pendulum.

d. The direction of each active scale-step is determined by its proximity to an inactive tone, being most strongly attracted by that inactive tone to which it lies nearest. Thus:

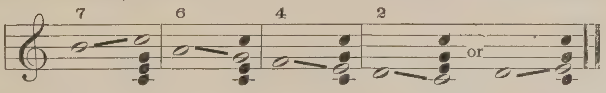
The *7th* scale-step *ascends* (preferably one step, to the 8th);

The *6th* scale-step *descends* (preferably one step, to the 5th);

The *4th* scale-step *descends* (preferably one step, to the 3rd).

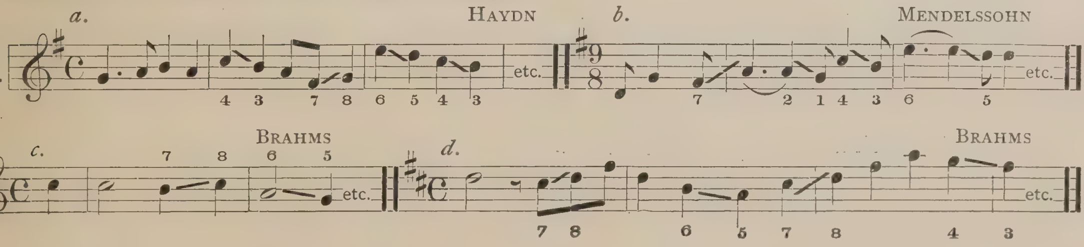
The *2nd* scale-step is unquestionably active, but, lying as it does equally distant from the inactive first and third scale-steps, the *direction* of its movement is not positively definable. For illustration:

Ex. 14.



This rule is illustrated in the following examples:

Ex. 15.



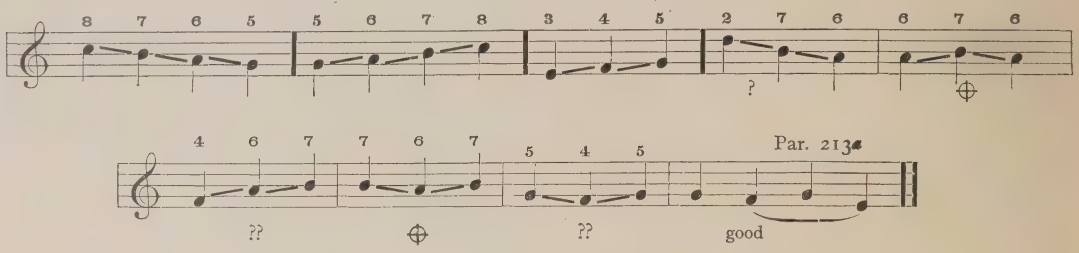
25. These are the *natural* movements of the scale-steps, and they will be made, unfailingly, as long as the active steps are not subjected to pressure. In good, smooth melody these impulses must and do prevail, as all the acknowledged good and satisfying melodies of the classic masters attest.

26. But the natural tendency of any active tone may easily be overcome by pressure in the opposite direction. Thus, the 7th scale-step will descend to step 6, *if approached from step 8.*

In other words, the succession 7–6 alone is unnatural and irregular, but the whole line 8–7–6–5 is justifiable.

The same rule applies to the 6th scale-step, which can be pushed upward into step 7, if approached from step 5. And step 4 will move upward into step 5, if preceded by step 3. Thus:

Ex. 16.

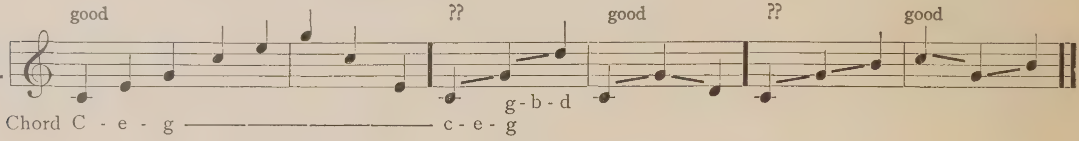


The sign ⊕ means "wrong." For fuller details, see *Exercises in Melody Writing.*

27. Moreover, an artificial tendency may be imparted to any scale-step, by various means: Approaching it along the scale in rapid rhythm; so arranging the accompanying tones that it becomes a dissonance (par. 197); by chromatically raising or lowering it (par. 265). In this way, the tendencies of the active scale-steps may be either counteracted or intensified; and the inactive scale-steps may acquire tendencies in either direction. The *natural* tendencies (defined in par. 24*d*) are the most significant, if not the most urgent, and should generally be respected in preference to acquired tendencies.

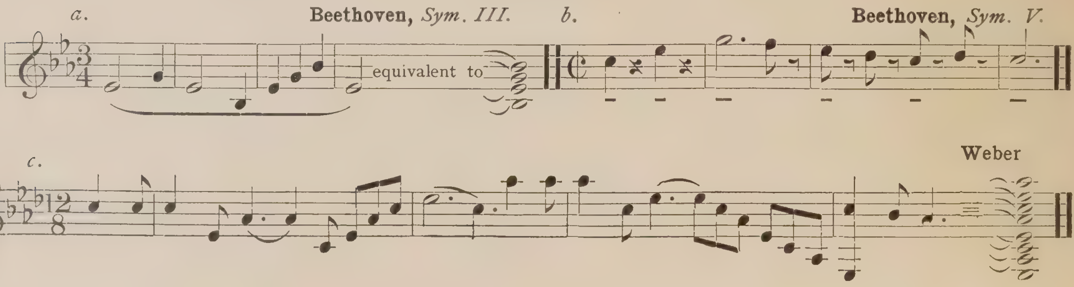
28. The limitation to the rule of the chord-line is as follows: Successive skips in the *same direction* must continue in the same chord-line. That is, if one skip follows another, the second skip must, — *if the chord changes,* — be made in the opposite direction. Thus:

Ex. 17.



29. The importance of the chord-line as basis of melodic figures, is shown in the following:

Ex. 18.

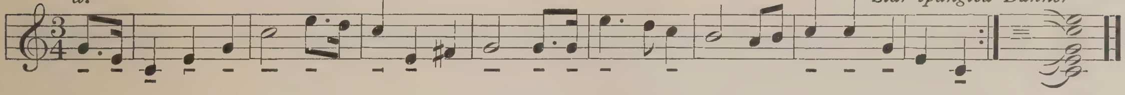


Beethoven, *Sym. III.*

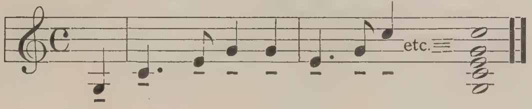
Beethoven, *Sym. V.*

Weber

d. *Star-spangled Banner*

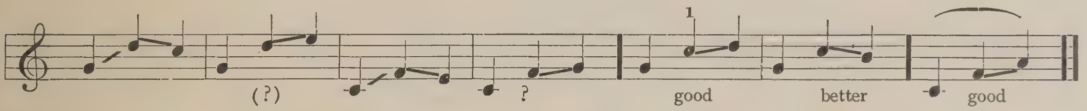


e. *Die Wacht am Rhein*



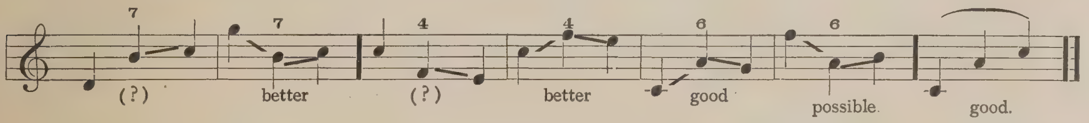
30. The narrow leap involves no obligation. But after a *wide* leap (beyond a third: see Ex. 21), the melody usually turns. This is almost imperative when the leap is made to an active tone, less so when made to an inactive scale-step. Also, it is not necessary when the melody continues in the same chord-line (par. 28). For example:

Ex. 19.



31. If the wide leap is made to an active tone in the direction of its natural tendency, it is impossible to turn without violating this tendency. Hence the rule, that a wide leap to an active tone should be made in the direction contrary to its tendency; that is, *down* to scale-step 7, and *up* to scale-steps 6 and 4. (Always excepting when the chord-line is unchanged.)

Ex. 20.



Test these rules by examining the given melodies in the book, — Exercise 16, etc.

FUNDAMENTAL PRINCIPLES.

A melody may follow the scale-line, and a good chord-line.

The natural tendency of scale-step 7 is to ascend; of scale-steps 6 and 4 to descend.

The natural tendency of an active tone may be overcome by approaching it along the scale in the other direction.

Successive skips in the same direction should be made along the same chord-line.

After a wide leap, the melody usually turns.

A wide leap to an active tone is best made in the direction opposite to its tendency.

EXERCISE TWO.

First study par. 43, 44, 51. Then write a large number of melodic sentences, either 4 or 8 measures in length, with strict observance of the above rules, and imitating the style of the given melodies (Exercises 16, 17, 22, etc.).

HARMONY.

32. Harmony, in its narrower sense, is the combination of single tones; in its wider sense, the association and succession of such harmonic bodies.

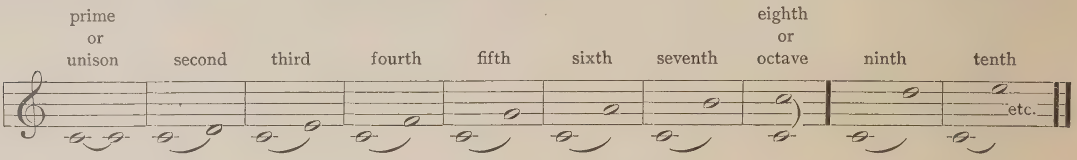
33. The combination of any two tones constitutes an Interval.

The term interval, or "space," can obviously not be applied to *tones*, as tone-associations are not defined by *distance*, but by *relation* only. The word "interval" does, however, apply to the *notes*, which lie upon the staff (and in the scale) at varying distances from one another. The names of these spaces, — between the *notes on the staff*, — are simply adopted as names for the various tone-associations, or synonyms of the tone-relations.

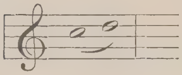
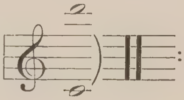
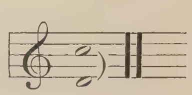
INTERVALS.

34. Intervals are always counted from the lower note upward, *as the major scale goes*, and are determined by the number of steps of the scale included by the two notes.

Ex. 21.



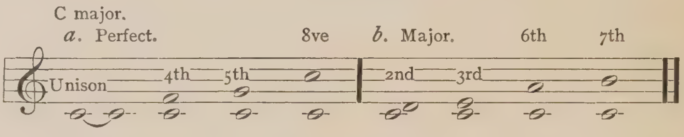
The first eight are simple intervals; the last two and all that follow (beyond an octave) are compound, — consisting of an octave and a second, octave and third, etc. Such intervals are always reduced to simple ones, and called, with omission of the octave, simply "second," "third," etc.; for, as already observed, these terms indicate strictly the relationship between the *letters*, which is always the same without regard to distance, as long as the letters do not exchange places. Thus, C–D is a "second," whether written

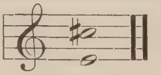
 or : and even D–C  is but slightly different.

35. These intervals, which follow the major scale, and therefore represent the simple *scale-relations* of the several steps to their keynote, may be called natural or diatonic intervals. They are divided into two classes: *perfect* and *major*. The **unison, fourth, fifth** and **octave,** *from the keynote of any major scale*, are called **perfect.**

The **second, third, sixth,** and **seventh** from the keynote are called **major.**

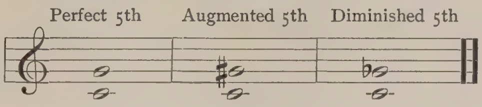
Ex. 22.



That is to say, the interval *c-f* (for instance) is a *fourth*, because *f* is the 4th letter or step in the scale of C; and it is a *perfect* fourth, because it exactly agrees with the natural scale of C, and because "perfect" is the term used to qualify the natural or diatonic 4th. The interval *e–c*♯  would be counted along the scale of E, and, as *c*♯ is the 6th letter from *e*, it is a *sixth;* furthermore, a *major* 6th, because it exactly agrees with the scale of E, and because "major" is the term applied to the natural sixth.

36. A *perfect* interval, when extended by an accidental (♮ ♯ ×), the letters remaining the same, becomes *augmented;* when contracted by an accidental (♮ ♭ ♭♭), it becomes *diminished*. For example:

Ex. 23.

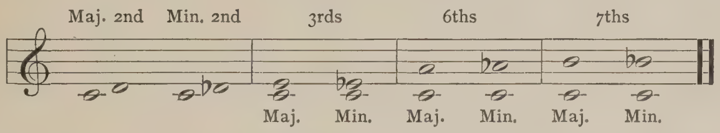


It is obvious that if the *letter* were to be changed, the *quantity* of the interval would be altered. Therefore the *g♯* (Ex. 23) must not be regarded as equivalent to *a♭*, nor *g♭* to *f♯*.

37. The perfect intervals are so called because they represent the best (most nearly "perfect") *relations*, — the associations of the keynote with its dominant and subdominant, the three principal tones of the key (par. 20). Ex. 22*a*. The associations of the keynote with the other scale-steps are less perfect ("imperfect") relations, and to these the term *major* (the "greater") is given, because they represent the larger of two sizes that are constantly being assumed by what is practically the same relation.

The "smaller" of these sizes is called *minor*, and it is obtained by contracting the major interval by an accidental. There are therefore four minor intervals, derived from the four major ones (Ex. 22 *b*).

Ex. 24.

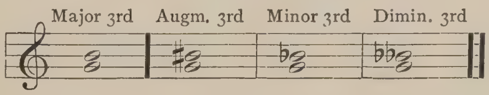


As stated, the major and minor sizes represent practically the same *relation*. That is, there is no radical difference between major and minor; none that affects their treatment as musical factors. They are merely different aspects of the same *tone-relation*. But, on the other hand, the inflection of any interval into its augmented or diminished form does result in a radical difference, both in relation and treatment.

38. A *major* interval, when extended by an accidental, becomes *augmented*, precisely like the perfect intervals. When contracted it becomes, as has been seen, not diminished, but *minor*.

A *minor* interval, when contracted, becomes *diminished*. Thus:

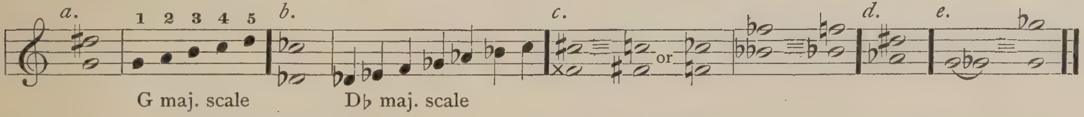
Ex. 25.



From this it appears that the perfect intervals become diminished by *one* contraction, whereas the major intervals must be contracted *twice* to become diminished.

39. In defining the quantity and quality of a given interval, the student must start from the only infallible standard, the *major scale*, and erect it upon the lower of the two notes. The number of the upper note in the scale gives the quantity. If the upper note agrees with the scale in question, the interval will be either perfect or major (par. 35). If not, it will have become minor, augmented or diminished, according to the inflection that has taken place (par. 36, 38). This, and a few other conditions, are shown in the following example:

Ex. 26.



At *a*, the interval is a 5th in quantity; the scale-note *d* being changed to *d♯*, the natural "perfect" 5th has been extended to an augmented 5th. At *b*, quantity, a 7th; being altered from *c* to *c♭*, the natural "major" 7th has been contracted to a minor 7th.

In cases like *c*, where the major scale of the lower tone is unfamiliar and inconvenient, the simplest process is to shift the interval to a convenient place by cancelling an equivalent accidental from both notes.

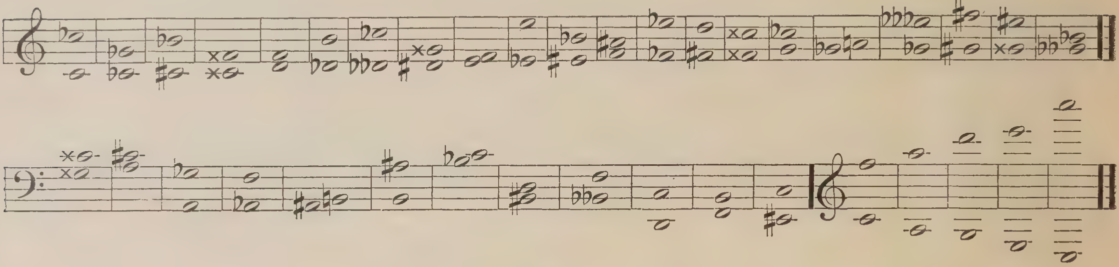
At *d:* This somewhat rare interval would be called a "double-augmented" 4th.

At *e:* Instead of the contradictory "diminished prime" (*g–g♭*), one should designate its equivalent, the "diminished *octave*."

EXERCISE THREE.

A. Erect the dimin. octave, minor second, dimin. third, perfect fourth, augm. fifth, minor sixth, and dimin. seventh, upon each of the notes E, A, D, G, B, F♯, C, G♯, F, C♯, D♯, and B♭: ‖ and the augm. octave major second, minor third, dimin. fourth, perfect fifth, augm. sixth, and min. seventh, on the notes D♭, G, C, F, B♭ A♭ D, E♭, G♭,

B. And determine the names of the following intervals:



Consonance and Dissonance.

40. Besides the relation of *generation* (explained in par. 11), which determines the right of the tones to associate as independent factors, in their operations within a key, there is another quality of tone-relation or affinity known as *consonance*. This refers to the degree in which the tones blend with each other, as sounds, and determines their right to appear in simultaneous union. (All the tones of a key are related by generation to their tonic, but if all sounded together at once there would be a disagreeable excess of dissonance; so it is evident that the first relation does not fully guarantee the other.)

41. The distinction of consonance and dissonance is defined by the vibratory ratio of the sound-waves which produce the sensation of tone.

a. It has been seen that the ratio 1 : 2 gives the octave, and 2 : 3 the perfect fifth (or harmonic degree). The next ratio, 3 : 4, gives the perfect fourth. Then follow 4 : 5 — the major third; 5 : 6 — the minor third.

b. Thus, as the tones approach each other in pitch, the ratios become more complex; there is a gradual increase of conflict between the sound-waves, resulting in proportionate decrease in consonance, or tone-blending. The ratio 8 : 9 gives the major second (or whole step), and 15 : 16 gives the minor second (or diatonic half-step).

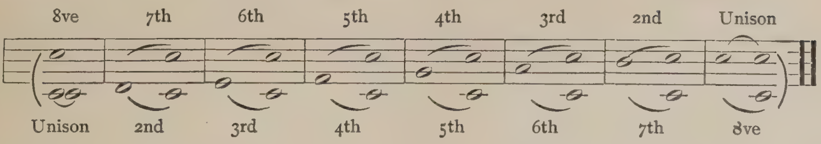
c. In musical theory, the ratios up to 5 : 6 produce consonances; those which follow produce dissonance. Therefore, the *minor third is the smallest consonant interval.*

d. The consonances are divided into two classes, however, because of the appreciable difference in their degrees of blending. The octave and fifth (direct and inverted, — par. 42) are called perfect consonances; the others (thirds and sixths, both major and minor), are called imperfect consonances.

e. All seconds and sevenths, and all augmented and diminished intervals, are dissonances.

42. The *inversion* of an interval is its complement within an octave. Thus:

Ex. 27.



In the inversions, one tone is simply transferred past the other to a higher or lower octave, therefore (on the grounds of par. 11) an interval and its inversion are *practically identical.* A perfect interval when inverted remains perfect; the inversion of major becomes minor; the inversion of augmented becomes diminished.

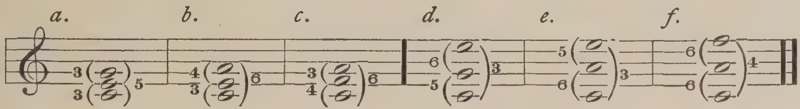
CHORDS.

43. A chord is the combination of *more than two tones*, so chosen that the intervals are entirely or preponderantly consonances (par. 41*d*).

The English word "chord," possibly owing to a confusion of derivation, has the same meaning as the word "accord" ("Akkord," "accordo") used in continental Europe, and signifies a body of tones which *accord* with each other.

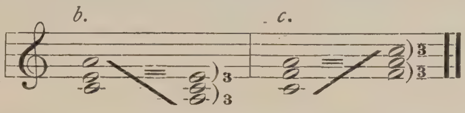
44. Consonant chords, or *concords*, containing none but consonant intervals, can not embrace more than *three* tones, combined as follows:

Ex. 28.

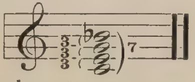


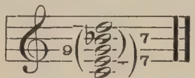
(E♭ may be substituted for E, and A♭ for A, because the intervals 3 and 6 may be either major or minor. The intervals 5 and 4 must, however, be *perfect* to be consonant.) The forms at *d*, *e*, and *f*, are identical with *a*, *b*, and *c*, respectively. *The forms b, and c, are merely modifications of the first and natural form a, by inversion.* For illustration:

Ex. 29.

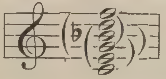


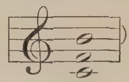
From which it appears that Ex. 28*a*, in which the tones lie one above another in thirds, is the primary chord-form, from which all others are derived.

45. *a.* If another third be added  (the ear sanctions *b*♭ in preference to *b*♮) the new tone forms a dissonant interval (7th) with the lowest.

b. If still another third be added  there will be three dissonant intervals.

46. *a.* Chords like these, which contain one or more dissonances, are called dissonant chords, or *discords.* Their use in harmony is not only sanctioned but demanded; because, on account of the obligations associated with a dissonance, they are more active than consonant chords. And, besides, their slight harshness affords a necessary contrast to the purer but less attractive concords.

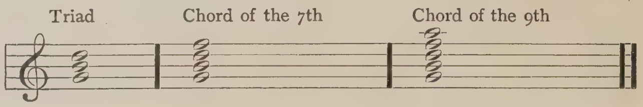
b. Still, the dissonant intervals must be introduced in judicious proportion to the consonances, which must largely predominate. The addition of still another third to the above chords  would increase the number of dissonances to such an extent (as shown by the lines) that there would barely be a predominance of consonant intervals.

c. To such tone-combinations as these, which extend beyond 5 tones and contain an undue proportion of dissonances, and to such tone-bodies as do not conform to the structure of thirds (for example ), a place is assigned among the so-called **Inharmonic elements,** where they can be much more simply and satisfactorily analyzed.

47. The concise definition of a "chord" is, then, *a combination of* **three, four** *or* **five** *tones, in intervals of thirds* (*or reducible to such*).

48. A chord of **three** tones is called a **Triad** (usually a *concord*); a chord of **four** tones is called a **Chord of the Seventh** (*discord*); and a chord of **five** tones is called a **Chord of the Ninth** (*double-discord*).

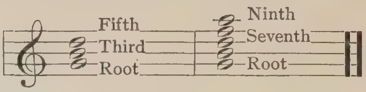
Ex. 30.



49. The tones which constitute a chord are called, separately, the **Intervals of the chord** (or **chord-intervals**), the term "interval" here again signifying the harmonic *relationship* of the upper tones to the lowest.

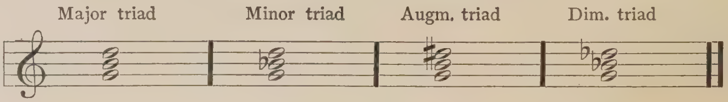
The lowest chord-interval (the one upon which the structure of thirds is erected, and from which the whole chord emanates) is called the **Root.** The other tones are called the **chord-third, chord-5th, chord-7th,** and **chord-9th,** respectively, according to their distance from the root.

Ex. 31.



50. A major third and perfect fifth constitute a *major triad;* a minor third and perfect fifth, a *minor triad.* The *augmented triad* has an augmented 5th and a major 3rd; the *diminished triad*, a diminished 5th and minor 3rd.

Ex. 32.

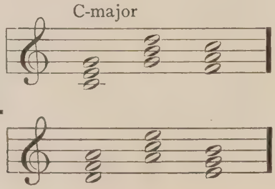


There are a few other distinctions made in the species of triads, and the varieties of four- and five-tone chords reach a high number. But as it is not the *shape* and *sound* of a chord, but its *location in the scale* and consequent *relation to its tonic* which defines its treatment, no further attention need be paid to these distinctions.

---

51. A triad may be erected upon each tone of the diatonic scale, *excepting the leading-tone,* and each triad takes its name from the step of the scale which its *root* occupies.

Ex. 33.



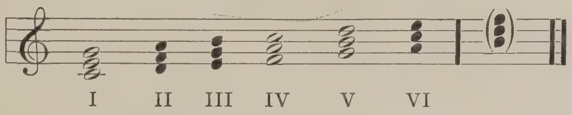
Tonic
Dominant
Subdominant
} triads, or **Principal triads.**

Second-Dom.
Submediant
Mediant
} triads, or **Subordinate triads.**

The first three are **principal,** because they emanate from the principal tones of the scale (par. 20 *a*), *i.e.*, the tonic or keynote itself, and those other two tones which stand in the relation of the harmonic degree (perfect fifth) to the tonic. These are the fundamental harmonies of a key, and, being *major* triads, they characterize and give the name "major" to their key. The last three are **subordinate,** because they lie more remote from their tonic; and, being *minor* triads, they contradict and oppose the prevalent major character of their key, and can therefore appear only as subservient and contrasting elements.

52. For convenience, the triads are designated by Roman numerals, coinciding with the situation of their roots in the diatonic scale, as follows:

Ex. 34.



Spoken: "the **One,**" "the **Two,**" "the **Three,**" etc.

53. The triad upon the leading-tone must be set aside for the present, for reasons which will appear in due time.

FUNDAMENTAL PRINCIPLES.

Intervals which agree with the scale-steps are perfect or major.
There is no radical difference between major and minor intervals.
An interval and its inversion are practically identical.
A chord is the combination of from three to five thirds.
The leading-tone cannot be a root.

EXERCISE FOUR.

Write out the six triads of every major key in the order given in Ex. 33, attaching the name, in Roman numerals, to each.

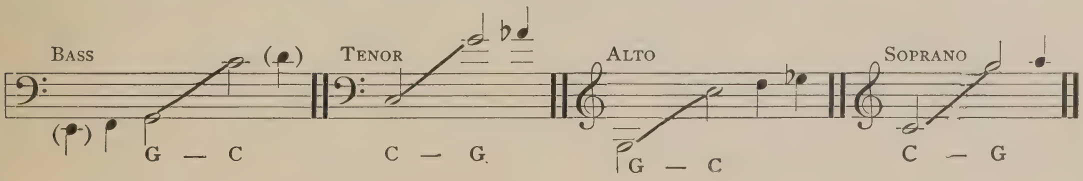
The Voices or Parts.

54. Music of every description is based upon the *succession of chords*, in such harmonic order as the various tone-relations (and the melody) dictate, and in such metrical order as the character of the piece requires, or the fancy of the composer suggests. For the adequate expression of such a succession of chords, four distinct tone-lines, called *voices* or (especially in instrumental music) *parts*, are necessary, and are usually employed.

a. Chords of three tones furnish material for but *three parts*, it is true, but it is advantageous to duplicate one of these three tones, in order to define the chord and the key with greater distinctness, and for this duplication a fourth part is required. And, on the other hand, chords of five notes, being somewhat unwieldly, are almost always deprived of one unimportant interval, so that even for such chords four parts are sufficient.

55. These four voices or parts are called (from the lowest upward) **Bass, Tenor, Alto** and **Soprano.** As *vocal* parts they have the following average compass:

Ex. 35.



56. The female voices (soprano and alto) correspond respectively in compass to the male voices (tenor and bass), but differ just about an octave in register. The highest and lowest of each class (soprano and tenor — alto and bass) are therefore called *parallel* parts. The compass here given is a safe *average*, and is bounded, as will be observed, by the tonic and dominant of C.

In instrumental music the compass of the parts depends entirely upon the instrument employed; for pianoforte music the compass is almost unlimited, and the terms soprano, alto, tenor, bass, refer merely to the relative position of the different parts, the highest being always "soprano," the lowest always "bass," etc.

The parts are usually written upon two staves, the female voices in the G-clef, the male voices in the F-clef; and the stems of the notes are turned respectively upward and downward to distinguish the parts which occupy the same staff,— as shown in Ex. 36.

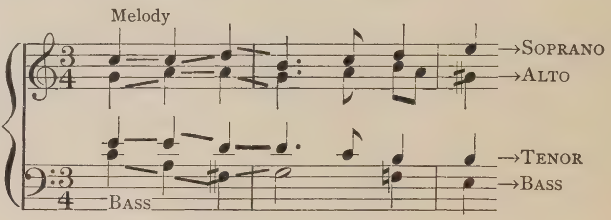
57. The most important of these four tone-lines is, generally speaking, the soprano, as its tones are more prominent than those of the lower lines, and it therefore *generally* carries the "melody" proper, the air or tune of the sentence.

The next in importance is the bass line, as it defines the chords, and supplies the harmonic basis of the composition.

The two inner parts are comparatively unimportant, as individual lines; they accompany the outer parts, and complete the harmony.

The arrangement and progression of the four parts or melody-lines which co-operate in the expression of a musical thought, are illustrated in the following example:

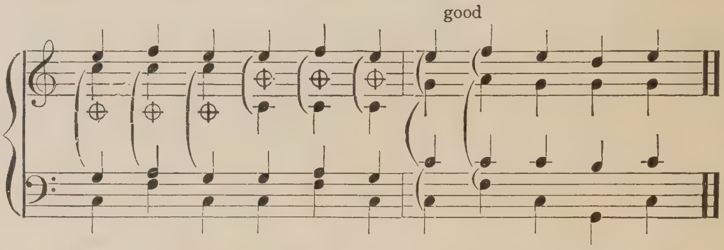
Ex. 36.



58. *Rule I:* The parts should not cross (*e.g.*, the soprano line should not be carried below the alto; and the same with the other parts).

Rule II: The *alto* should not lie *more than an octave* from either of its two neighbors, soprano and tenor. For example:

Ex. 37.

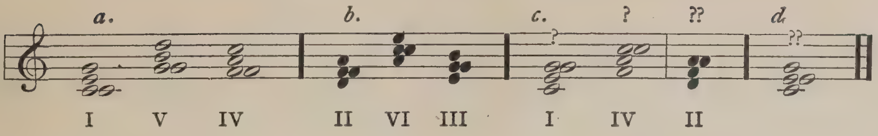


DUPLICATION OF CHORD-INTERVALS.

59. The best notes to double are *the principal tones of the scale* (the tonic, dominant and subdominant), *wherever they occur;* — excepting, first, when they are the *chord-fifth* in a triad, which interval is not entitled to the prominence which duplication gives to a tone; and, second, when they represent a dissonant interval (par. 200*d*).

By thus emphasizing the chief elements of the scale, the identity of the key is maintained throughout in the most consistent manner. The result is as follows:

Ex. 38.


a.
b.
c.
?
??
d.
?
??
I
V
IV
II
VI
III
I
IV
II

60. From this it appears that

in the *principal* triads the **root** (Ex. 38*a*), and
in the *subordinate* triads the **chord-third** (Ex. 38*b*),

should be duplicated, as a general rule.

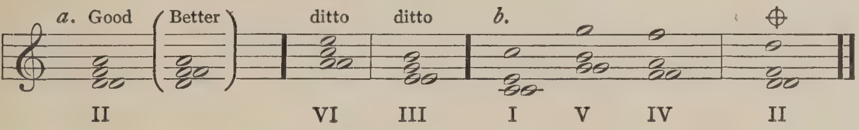
As seen in Ex. 38*c*, the chord-fifth of the I, and also of the IV, are principal tones of the scale. But they should nevertheless not be doubled, because of their quality as *chord-fifth*. In subordinate triads the chord-fifth is a subordinate scale-step, and therefore its duplication is still more questionable. Also, for the same reason, the *chord-third* of a principal triad should not be doubled, as a rule (Ex. 38*d*).

61. There are two additional, exceptional possibilities, as follows:

a. In the subordinate triads the **root** may be doubled (though a subordinate tone of the scale), because it is the principal interval of the chord. (Ex. 39*a*.)

b. In the *principal* triads the chord-fifth may be omitted, and the **root** tripled. (Ex. 39*b*.)

Ex. 39.


a. Good
(Better)
ditto
ditto
b.
⌖
II
VI
III
I
V
IV
II

The Positions of a Chord.

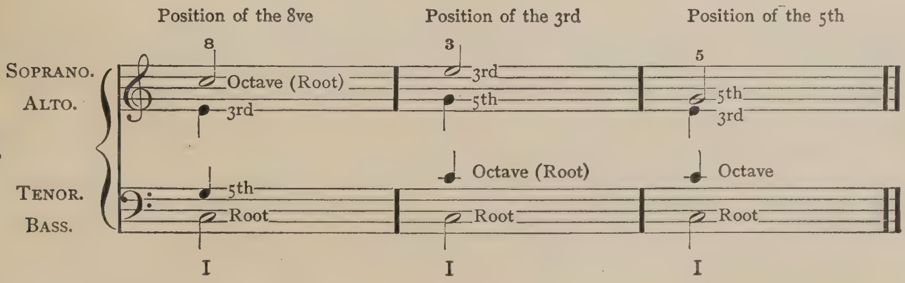
62. In view of the prominence and significance of the uppermost tones (par. 57), it is evident that much must depend upon the choice of chord-interval assigned to the soprano part. This choice, which also defines the principal *melodic* line, determines the so-called *position* of the chord, as follows:

a. When the root is in the soprano, the chord is in *octave-position*. "Octave" is here synonymous with "root," and applies to the root in any part above the bass.

b. When the chord-third is in the soprano, the chord is in the *position of the third* (not "third-position").

c. When the chord-fifth is in the soprano, the chord is in the *position of the fifth*. Thus:

Ex. 40.

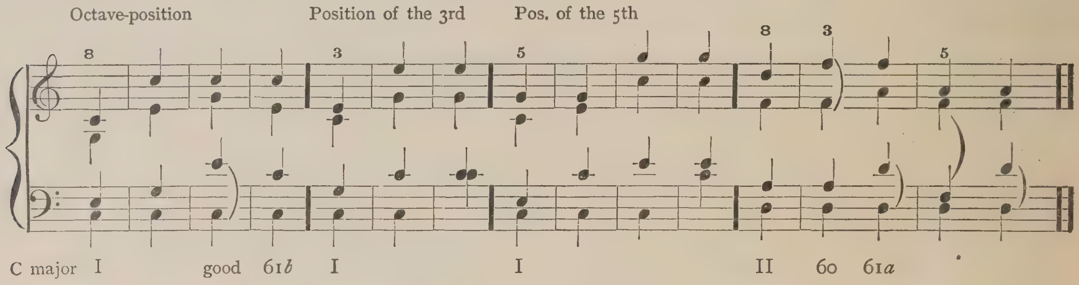

Position of the 8ve
Position of the 3rd
Position of the 5th
Soprano.
Alto.
Tenor.
Bass.
8
Octave (Root)
3rd
5th
Root
I
3
3rd
5th
Octave (Root)
Root
I
5
5th
3rd
Octave
Root
I

FUNDAMENTAL PRINCIPLES.

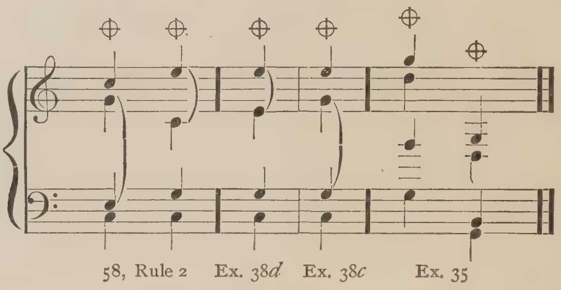
The principal tones of the key should be doubled, as a rule.
Any root may be doubled.
The chord-fifth, in principal triads, may be omitted; but not doubled.
The "position" of a chord is defined by the soprano.

EXERCISE FIVE.

Erect the six triads of G major in successive order (I, II, III, IV, V, VI), in their three positions, according to the following model:



The root must always be in bass. Strict regard must be paid to the compass of the parts (Ex. 35), and to the duplication of Intervals (par. 60, 61). The following examples are wrong:



RULES OF PART-WRITING.

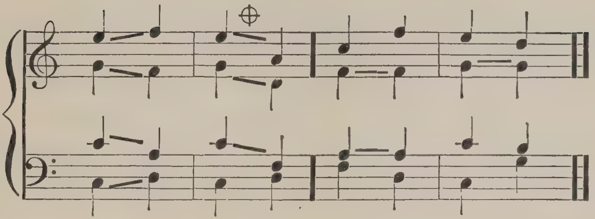
63. The conduct of the four voices or parts, the tracing of the four tone-lines which co-operate in the combination of harmonic bodies, is guided by the following four fundamental laws of voice-progression:

64. Rule I. *a.* Each part should move as evenly, connectedly, (diatonically, "horizontally") from one chord-interval to another as circumstances will permit.

b. *Wide* leaps should be avoided as much as possible.
c. A tone that is common to successive chords *generally* remains unchanged.
d. This rule applies chiefly to the inner parts. Both soprano and bass may be treated with more freedom.

For example:

Ex. 41.



N.B. Each of these measures is an example by itself, and is not to be connected with the one that follows.

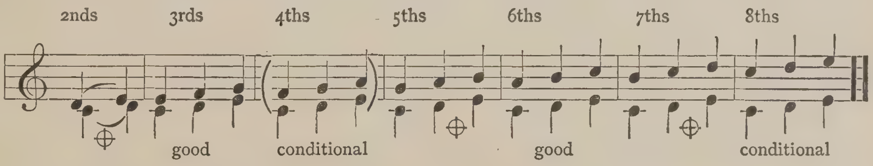
65. Rule II. *a.* No two parts (neither outer, inner, adjacent nor parallel parts) should move in *parallel* motion (*i.e.*, direction) from *one perfect fifth to another perfect fifth;* nor from *one perfect octave, or unison, to another perfect octave, or unison.* In other words, *parallel or consecutive fifths, octaves and unisons, in the same pair of voices,* are prohibited.

b. Successive chord-fifths sound disagreeable because of the comparatively unpleasant *sound* of the interval of a perfect fifth. The ear accepts one of these at a time (especially when softened by the presence of a third), but rejects two in close and evident succession. As will be seen, the effect of even one fifth alone, when rendered conspicuous by any means, may be decidedly unwelcome; and inversely, whatever serves to conceal or disguise the fifth, proportionately removes the objection.

c. Successive octaves do not offend the ear; but when two distinct parts make the selfsame movement at the same time, the individuality of each part is momentarily lost. In successive unisons, one part disappears entirely. *Persistent* successive octaves, on the contrary, which *duplicate an entire melodic figure* or line, do not convey this disappointing impression, and are therefore good, — the *intention* being obvious.

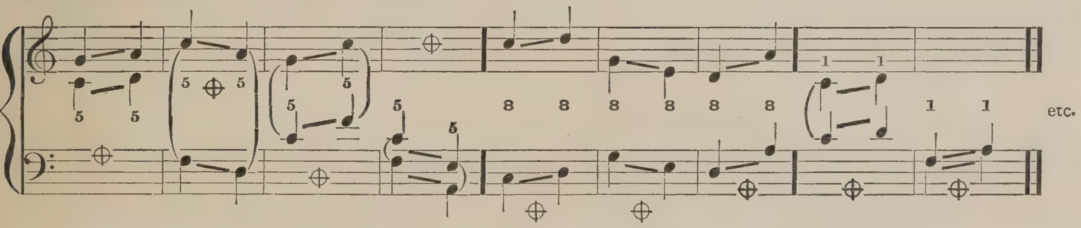
d. Consecutive seconds and sevenths are forbidden by common sense, and are therefore not included in the rule. Consecutive fourths are as disagreeable as fifths, but apparently less distinct; they seldom occur alone, and whatever accompanies them generally overpowers them.

Ex. 42. Parallel motion in



Parallel or consecutive fifths and octaves:

Ex. 43.

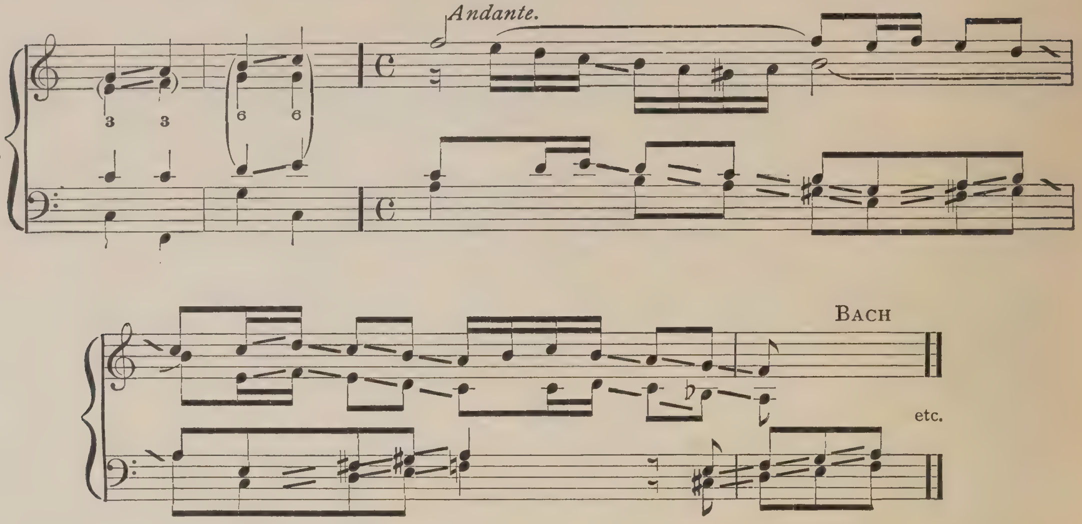


The student will recognize which parts are represented in this example, by the direction in which the stems are turned. The other parts are purposely omitted.

66. Rule III. The parts (or, more exactly, any *two* parts) should be led as much as possible in *parallel thirds or sixths,* as progressions of this kind invariably sound well.

See Ex. 42, measures 2 and 5.

Ex. 44.



This applies to single progressions as well as to a protracted series of chords, and is applicable to *any* pair of parts, — not necessarily adjacent ones.

67. Rule IV. *a. The leading-tone must progress diatonically upward* to the tonic, in whichever part it chances to lie; but especially in prominent parts (soprano or bass). Par. 24*d*.

b. The *downward* tendencies of the 6th and 4th steps of the scale must also be respected, ***in prominent parts.*** Par. 24*d*. (But see par. 26.)

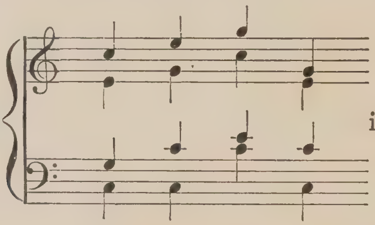
c. The leading-tone should never be doubled.

The general Exception.

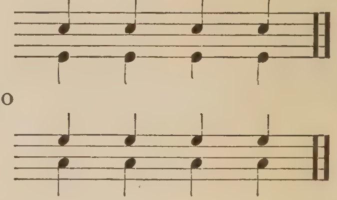
68. These rules of harmonic progression refer only to the *transition from one chord into another* (*new*) *one*, and are not valid for the mere *repetition*, or change of form, of the *same chord*.

Hence, when a chord is simply repeated, it is possible, and even desirable, to change the location and arrangement of the tones, even with wide skips (contrary to Rule I), in order to avoid monotony. Thus,

Ex. 45.

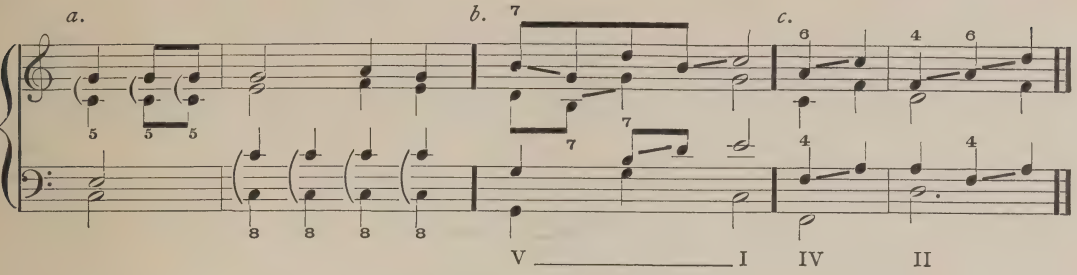


is preferable to



On the ground of this exception, the *repetition* of a fifth, octave or unison is permissible; Ex. 46*a*. Further, the leading-tone may make any reasonable leap, in either direction, during chord-repetition; Ex. 46*b*. And, similarly, the tendencies of all other active tones are suspended as long as the chord remains the same; Ex. 46*c*.

Ex. 46.



FUNDAMENTAL PRINCIPLES.

The voices must move smoothly; without wide leaps, if possible.
Parallel 5ths or 8ves in the same pair of parts are forbidden.
Parallel 3rds and 6ths are very desirable.
The leading-tone must not be doubled; and it ascends to the tonic.
During the repetition of a chord, all rules are suspended.

QUALIFICATIONS OF TONES, CHORDS AND CHORD-INTERVALS.

69. The manifest difference in the quality and importance of the various tones, chords and chord-intervals may be briefly defined as follows:

a. The relative quality and importance of a tone is determined *by its distance from the all-important tonic in harmonic degrees* (perfect fifths). This indicates the extent to which it confirms the key. The relative order of scale-steps is therefore 1, 5, $\frac{4}{2}$, 6, 3, 7. (Steps 5 and 4 are theoretically of equal importance, as each lies one harmonic degree from the keynote; but preference is always given to the *upper* perfect fifth, which is literally next of kin.) Steps 4 and 2 may be considered practically equal; therefore "subdominant" and "second-dominant" are nearly synonymous.

b. Exactly the same arrangement obtains in the grading of the chords, the order of which is: I, V, IV, II, VI, III. (As intimated in par. 53, there is no "VII.")

c. The quality of a chord-interval is determined *by its distance, in ascending thirds, from its root.* The root, as exponent of the chord, is the strongest. The chord-third is lighter and more flexible, — in some respects the best part of the chord for the practices of composition. The chord-fifth is still lighter; it is weak, hollow, "soft," and, as shown, may be omitted at times. In par. 65, this quality is given as a reason for avoiding successive fifths. ("Chord-fifth," and perfect fifth as "harmonic degree," must not be confounded.)

d. The chord-seventh and chord-ninth are still weaker and more unstable. But, as *dissonances*, they possess a certain piquancy which the chord-fifth lacks.

70. The entire system of tone-material is grouped in **three distinct classes: the tonic class, the dominant class, and the second-dominant (or subdominant) class.** There are points of resemblance between them, and yet each forms a distinct system by itself. These three classes cover the whole ground of musical associations and movements. There is no chord that ever has been, or can be, used, that may not be defined as a member of either the tonic, the dominant, or the second-dominant class of harmonies. The tonic class is peculiar to itself. In this book the dominant chords will be called the *first class* (of non-tonic chords); those of the second- or sub-dominant will be called the *second class* (of non-tonic chords). Comp. Ex. 147.

PART II.

THE SUCCESSION OR CONNECTION OF CHORDS.

DIVISION A: CONCORDS.

SECTION I. TRIADS.

The Tonic triad, I.

71. This is the fundamental representative of the **tonic class** of chords. It is the Alpha and Omega of the harmonic system. It can progress with equal facility to (that is to say, can be followed by) *every other chord in its key.*

72. The position of the *third* is the best, in general. The octave-position is heavy; that of the fifth somewhat weak. (Comp. par. 69*c*.)

The Dominant triad, V.

73. This is the fundamental representative of the **dominant** or first class of chords. (Par. 70.)

a. The V contains the most important melodic note of the scale, *i.e.*, the leading-tone. This appears in no other triad but the III, in which it is the unimportant chord-fifth.

b. The V, because of its nearness to the tonic center (one harmonic degree removed), is attracted to the tonic chord with greater energy than is exhibited in the movement of any other harmonic body. *Every* chord is drawn towards the center of the harmonic system, as shown in par. 259, which see; but nowhere else does this force of gravitation operate so directly as upon the dominant (nearest) class. This explains why, in music prompted by true natural instinct (as that of classic writers), the progression V to I represents probably three-fourths of all the harmonic movements that are made.

c. In noteworthy contrast to the tonic triad, which can progress directly to any other chord in the harmonic system, the dominant triad is distinguished as the chord *into* which every other one may, and ultimately *must* progress, as the medium through which the tonic (the object of all harmonic succession) may eventually be reached.

d. In the dominant triad there is scarcely any choice of position, that of the octave being perhaps the least frequent.

74. The following examples illustrate the connection of the I with the V in each order. The choice of *chord* determines the bass, which takes the root. The soprano part depends upon the position chosen at the beginning, and the operation of Rule I (par. 64). In these examples the possibilities of the soprano are exhausted by moving systematically from each of the three positions of the first chord to each position of the next, in the order of their proximity.

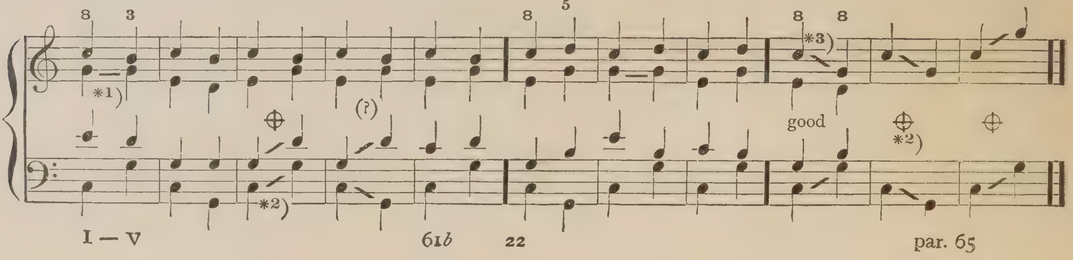
After the soprano part is finished, the inner parts are added, with close observance of par. 64, and other rules.

Each "measure" is an example *by itself*. No special rhythm is indicated. Unless marked, it is understood that either chord may occupy the accent. The signs ⊕, ??, ?, (?), denote the degree of objection.

THE SUCCESSION I–V (C MAJOR).

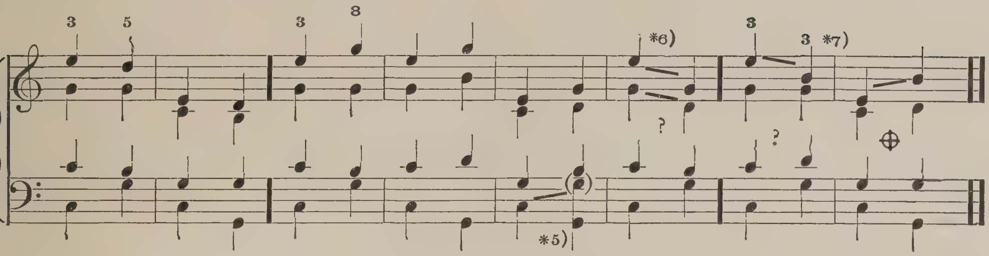
a. From the *octave*-position of the I:

Ex. 47.



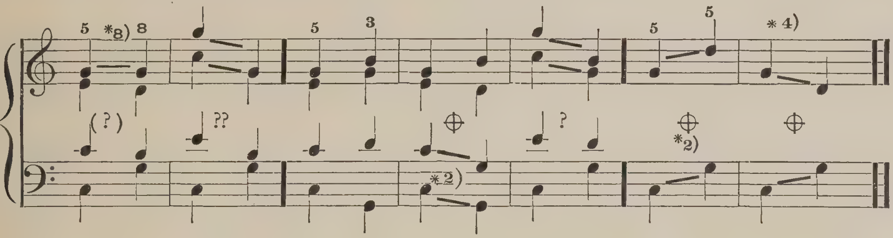
b. From the position of the *third* of the I:

Ex. 48.



c. From the position of the *fifth* of the I:

Ex. 49.



*1) Par. 64*c*. — *2) Par. 65. — *3) This measure illustrates a noteworthy exception to the rule of successive octaves; they appear in soprano and bass, but in *contrary direction;* at *4) successive fifths occur, similarly, in opposite direction. In the case of octaves, the difference in direction is a sufficient excuse, even in prominent parts; but successive *fifths* are not excused by opposite motion, unless one of the voices involved is an *inner part*. Ex. 47–4, tenor and bass, is excusable; Ex. 49–7 is wholly wrong. — *5) The lower *g* in bass is better than the higher, because the latter makes parallel movement in all four parts; it is wise to avoid more than three parallel parts. — *6) Too many wide leaps. — *7) Measure 7 is excusable, as the soprano leaps *down* to the leading-tone (par. 31); the next measure is wrong, because of the wide leap *upward*. *8) The repetition of a melody-note is slightly monotonous, but not wrong.

75. The object of these and all subsequent examples is, first, to furnish the student with a sufficient (if not exhaustive) illustration of the harmonic progressions, as a table to which he can refer in working out his exercises; second, and perhaps chiefly, to afford him a test to which he can apply his *ear*, and according to which he can and should cultivate his musical sensibility. *Therefore the examples must be studied at a well-tuned piano; they should be played through slowly and thoughtfully, each correct measure several times in succession, first emphasizing one part and then another, and, if possible, softly singing the soprano part (melody) each time.* The explanatory notes which follow each example should also be carefully studied.

76. The following general deductions, respecting the *soprano*, may be made from the above examples:

a. Two *octave*-positions in succession are hazardous (Ex. 47–10, 11).

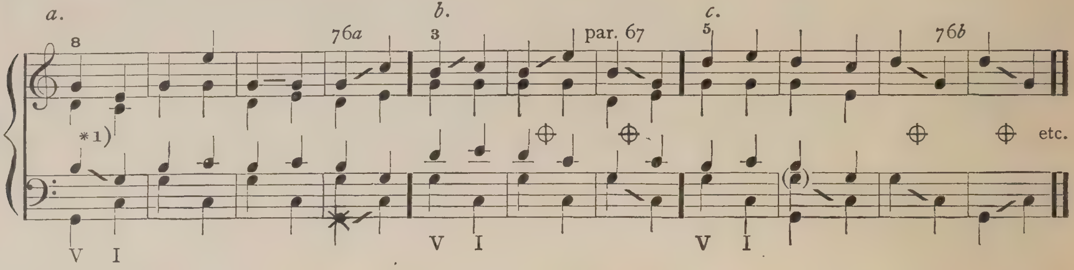
b. Two positions of the *fifth* in succession are always poor (Ex. 49–6, 7).

c. *Wide* leaps in soprano, especially to sensitive tones (chord-fifth, leading-tone), are hazardous (Ex. 48–6, 7, 8; Ex. 49–2, 5, 6, 7).

THE REVERSED SUCCESSION, V–I.

77. *a.* From the octave-position of the V. *b.* From the position of the third. *c.* From the position of the fifth.

Ex. 50.



*1) The leading-tone, in the tenor, is led *downward* to *g*, instead of upward (67). This is permissible on two conditions: first, that it occurs only in an *inner* part; second, when it is preceded by a higher tone, — that is, when it is on the way down, as in Ex. 16. See Ex. 51*d*, *e*. Further, it must not descend with any *wide leap*, — excepting, always, during chord-repetition.

78. As stated in par. 73*b*, the above progression, from V to I, is one of the most urgent, most nearly inevitable chord-movements in music. This, and all similar successions, *in which the chord falls one harmonic degree*, will be distinguished in this book as the **Normal progression.**

FUNDAMENTAL PRINCIPLES.

The tonic triad (I) can progress to any other chord.

Every chord can progress to the dominant triad.

The dominant chord is characterized by the leading-tone.

Successive octaves in *contrary* motion are allowed, but not fifths.

Successive positions of the 5th are not good.

The Normal progression of a chord is a harmonic degree (perfect fifth) downward, — from root to root.

EXERCISE SIX.

Connect, as in the above examples, the I–V in G major; the V–I in B-flat major; the I–V in E major; and the V–I in D-flat major. Each in as many ways as possible, but carefully avoiding all errors or doubtful movements. Review par. 64.

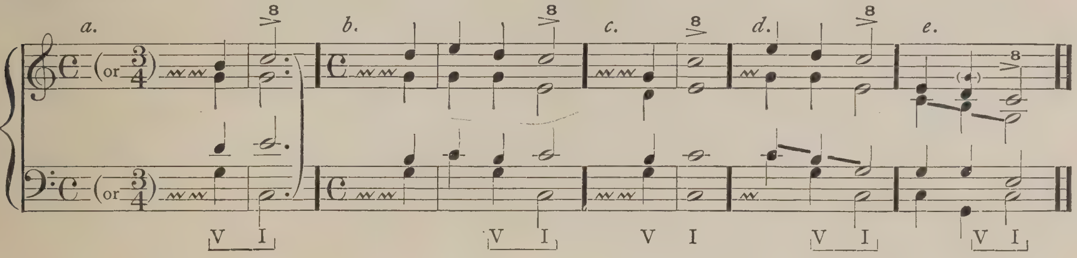
The Perfect Cadence.

79. A cadence is an interruption or momentary pause in the rhythmic movement; a stopping-place, or point of repose in the sentence, which indicates the end of a melodic member or section of the composition. A cadence is made with at least two chords; the *final* one of these is called the cadence-chord. *All cadence-chords fall on an accented beat.* Cadences differ in force or weight, partly according to the importance of the cadence-chord, and partly to its length. In order to interrupt the rhythm, the cadence-tones should be somewhat longer than those which adjoin.

80. The *perfect cadence*, or full stop, which occurs at the end of the entire sentence, is the combination of the four following conditions: 1, *The tonic triad;* 2, *in octave-position* (*root in both outer parts*)*;* 3, *on an accented beat;* 4, *preceded by the dominant triad* (*in any position*).

For illustration:

Ex. 51.



Note to Ex. 50.

The Phrase.

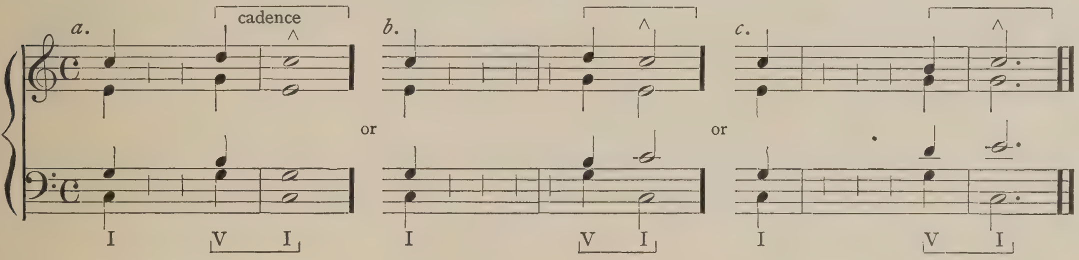
81. *a.* The smallest limits within which a harmonic and melodic thought may be adequately expressed is the **Phrase.** It is distinguished from larger forms in having but one positive rhythmic interruption, namely, the *perfect cadence* at the end.

b. It is usually *four measures in length;* occasionally one-half, or double this length (two measures, or eight measures); seldom an uneven number, as 3, 6, or 9 measures.

c. It commences with the tonic triad, *in any position*, and upon an accented or unaccented beat at option; and closes, is already stated, with the perfect cadence (V–I) upon an accented beat (either accent) of the fourth measure, — sometimes the second, or eighth, measure.

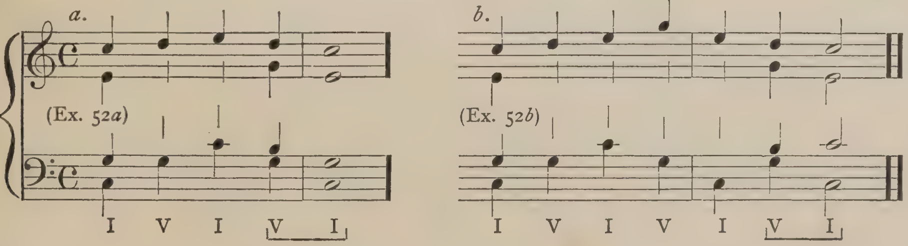
82. The outline of a phrase of two measures, in 4-4 time, will be then as follows:

Ex. 52.



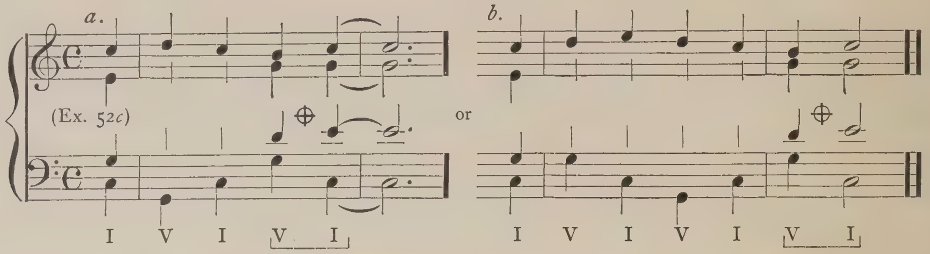
83. The unoccupied beats, in these outlines, may be supplied with the tonic and dominant triads in the following manner, the melody-notes being chosen according to Rule I (par. 64):

Ex. 53.



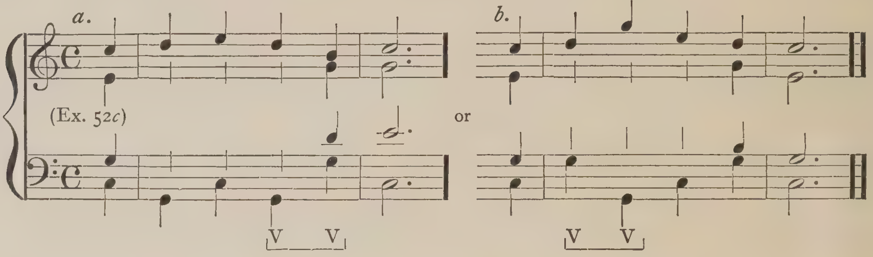
The regular alternation of I and V in Ex. 52*c* would displace the perfect cadence, by shifting the I to an unaccented beat, thus:

Ex. 54.



To avoid which, *one of the chords must be repeated:*

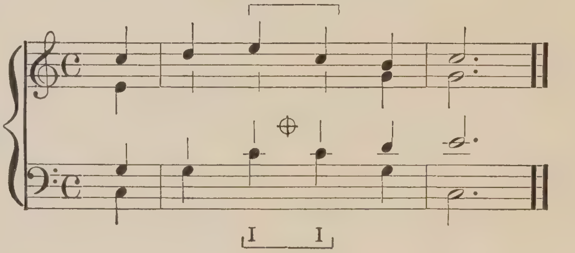
Ex. 55.



84. The repetition of a chord in the course of a phrase is extremely desirable, for many good reasons. It checks the monotony of constant change of chord; it cancels all limitations (see par. 68), and provides full liberty for any desired movements (wide skips) in the melody, and other parts. In a word, the best — possibly the only — way to extract the musical contents out of a chord, is to *dwell upon it.* See Ex. 18; Ex. 12*b*.

85. But chord-repetition itself is subject to one *rhythmic* rule, namely: A chord (more correctly, a bass tone) may be repeated from an *accented* beat into the following unaccented beat or beats, but, as a rule, *not from an unaccented beat.* In other words, the chord (bass tone) should be *changed at the bar, or accent,* because the accent is the exponent of a new rhythmic group, and this should be confirmed by the announcement of a new chord. Compare par. 5. The following location of the chord-repetition is irregular:

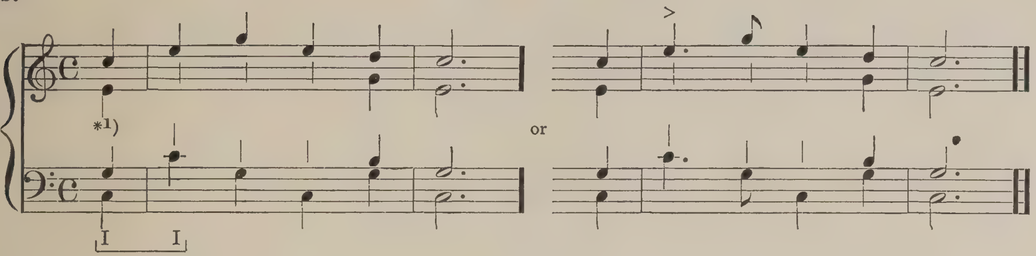
Ex. 56.



It occasions what might be called a *rhythmic halt.*

86. An exception to this rhythmic rule is always admitted at the *very first* accent of a phrase. Thus:

Ex. 57.



*1) This unaccented beat is simply *preliminary*, and is never included in the actual metric design of the phrase. Such preliminary beats are, however, usually deducted from the cadence measure.

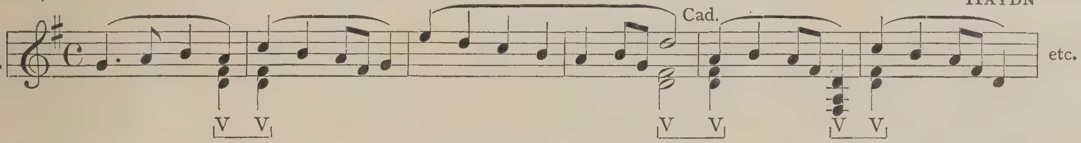
87. Other exceptions to the rule are:

a. A chord or bass tone which *begins* a measure may always extend throughout its measure (without regard to the secondary accent). See Ex. 45, which is correct rhythm. Also Exercise seven, bass *d*, 2nd measure.

b. At a cadence, or at the lighter interruptions between distinct melodic members of a sentence, the new member may begin with the same chord, or bass tone, with which the preceding member ended; because these two (similar) chords, in their relation to their respective members, lose their rhythmic connection with each other. For example (note the slurs):

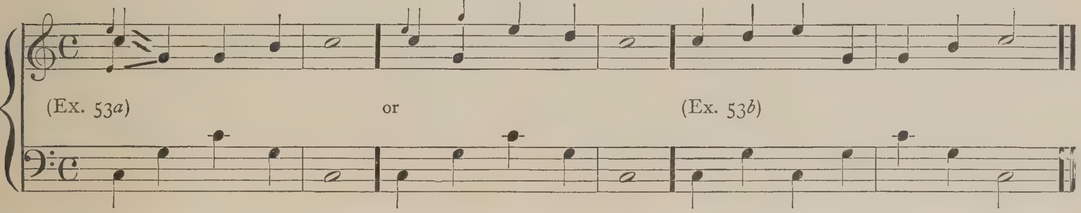
HAYDN

Ex. 58.



88. The melody (soprano) of these examples may also be constructed in the following ways:

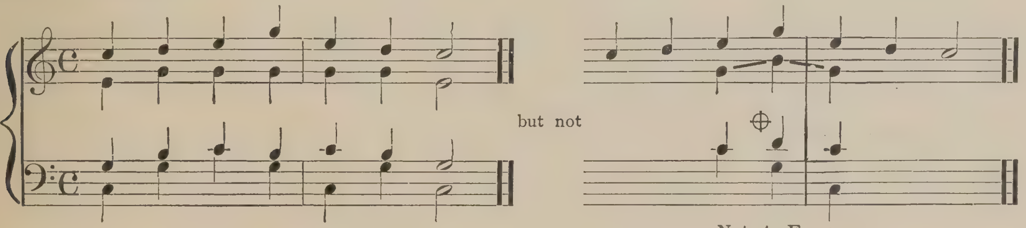
Ex. 59.



But they are somewhat less smooth and natural than the construction of the soprano as shown in Ex. 53. In this manner, however, the soprano should be tested and improved until the very best melody has been found that the given harmony will yield.

89. After the phrase-melody has thus been defined, the inner parts are added in the usual manner. Ex. 53*b*, completed, is as follows:

Ex. 60.



Note to Ex. 50.

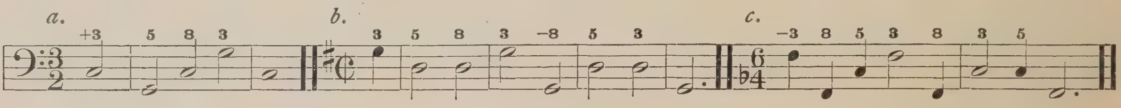
FUNDAMENTAL PRINCIPLES.

All cadence-chords fall upon accented beats.
The perf. cadence is made on the I, in 8ve-position, accented, and preceded by the V.
A bass tone should not be repeated over the bar, or over an accent, as a rule.
Avoid monotony in the melody, but also too many wide skips.

EXERCISE SEVEN.

The following given basses, indicating certain harmonic progressions in phrase-form, are to be supplied with soprano, alto and tenor, as shown above.

N.B. The soprano must be written out complete, before the inner parts are filled in. The bass notes are successive *roots*. The numbers above the notes refer to the *position* (soprano note) to be taken; the sign + before a number indicates the *high* position; the sign −, the *low* position. The last bass ("numbered bass") is to be written out in the given key, and in other keys, and treated like the others.



d.

A major. 3/4	+3 8 5	3 5 3	5 8 3	
	I I V	I I I	V I V	I *1)

*1) Value, dotted half-note.

N.B. These phrases are not to be tested at the piano until after they have been carefully and *completely* worked out at the table. Those who prefer to work independently of the given positions may of course ignore them, and choose their own melody (perhaps a number of different ones). In this case pars. 76 and 68 must be consulted.

N.B. To this exercise the student must add a number of **Original basses** (in phrase-form), according to the given rules, and imitating the given basses. It is well to write the bass alone, first, and then to add the upper parts. But, if preferred, all four parts may be written together.

THE SUBDOMINANT TRIAD, IV.

90. This is not the *fundamental* representative of the Second Class of non-tonic chords (par. 70), as will be seen. But it is important in its class, on account of its perfect-fifth relation to the tonic note. Its characteristic feature is, the possession of the *6th and 4th* steps of the scale (the tones with downward tendencies), which distinguish it from the dominant triad (par. 73).

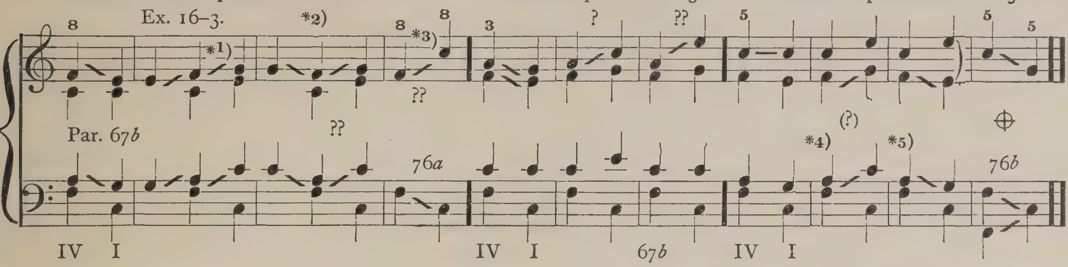
91. The position of the third is preferable to either the pos. of the octave or that of the fifth.

92. The IV bears the same relation to the I that the V does (a harmonic degree), and therefore its connections with the I are as natural and convenient as those of the V. Review pars. 74, 75.

93. The connection of the IV with the I is as follows:

a. From the octave-position of the IV: *b.* From the pos. of the 3rd: *c.* From the position of the 5th:

Ex. 61. IV–I

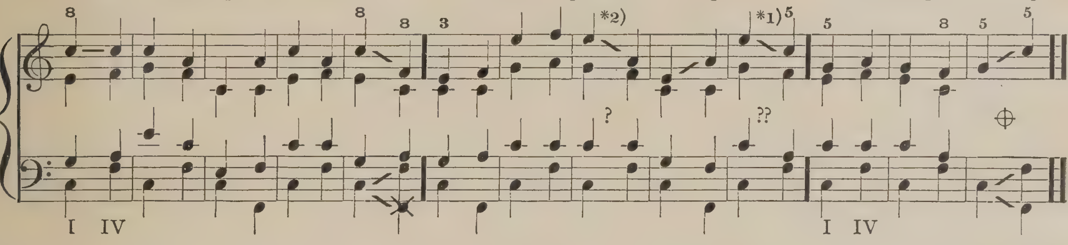


*1) The 4th step moves upward in soprano, because approached diatonically from below. — *2) When approached from *above*, its natural inclination is strengthened, and it *must move downward*. And so, also, with the 6th step. — *3) This is objectionable, whether the octaves are parallel or opposite, because the 4th step skips upward in soprano, contrary to its natural tendency. — *4) The upward progression of the 4th and 6th steps in the *inner* parts is not very bad; still, the following measure, *5), is better, notwithstanding the doubled mediant (*e*) in sopr. and alto. *This proves that the rule of correct melodic progression is more significant than the rules of duplication.* In other words, the melodic successions must be correct and smooth, even at the cost of other *general* rules. This applies, as usual, principally to the soprano part.

94. The reverse of this connection, *i.e.*, from the I into the IV, coincides with the **Normal progression** (par. 78).

a. From the octave-position of the I: *b.* From the position of the 3rd: *c.* From the pos. of the 5th:

Ex. 62. I–IV



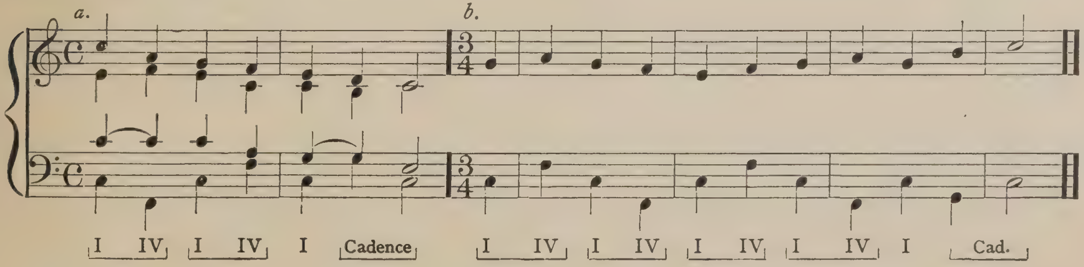
*1) The skip to the chord-fifth in soprano, though but narrow, is disagreeable. — *2) The skip here is not as bad, because, though both tones are subordinate steps of the scale, neither of them is a chord-fifth, nor the leading-tone; see par. 76*c*; the following measure is better, because of par. 31.

---

95. The fact that a phrase cannot well consist of the I and IV alone, proves that the IV is inferior to the V, which, in the foregoing exercise, *was* used with the I alone in constructing simple phrases. The individual harmonic character of the IV (its heaviness and, in a certain sense, dullness) renders it far less frequent than the other two principal triads (I and V). It is most effective near the final cadence, where its breadth is appropriate, and the need of variety greater.

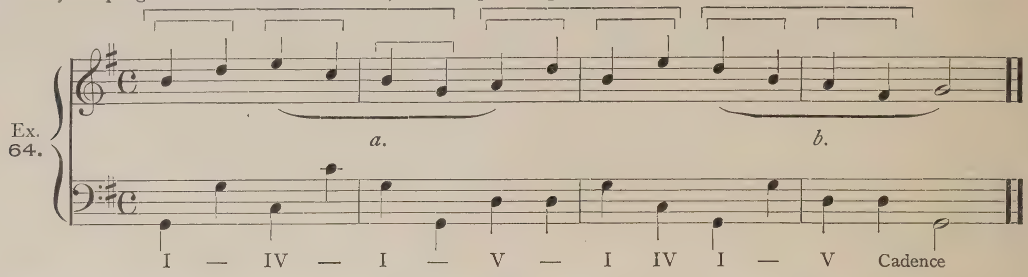
The following phrases are therefore somewhat unnatural:

Ex. 63.



Not so this one, however, which consists of the tonic triad in alternation with both the dominant and subdominant triads: *i.e.*, the progressions I–IV–I and I–V–I, with frequent repetitions.

Ex. 64.

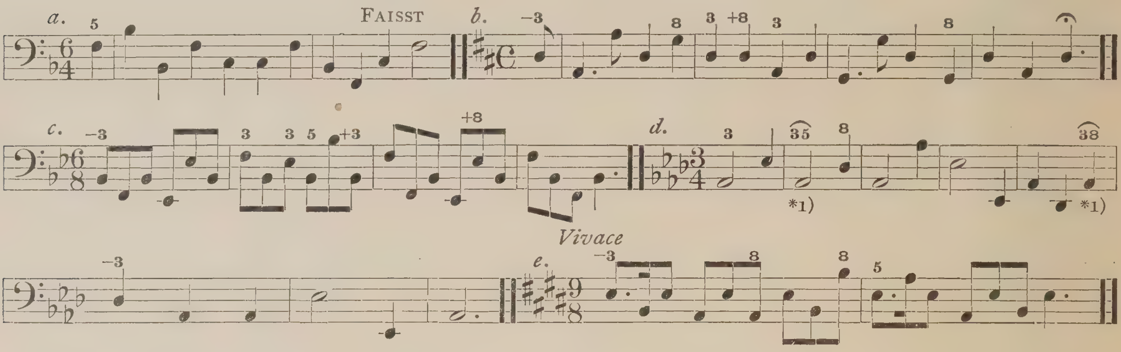

a.
b.
I — IV — I — V — I IV I — V Cadence

The consistent and symmetrical construction of this melody is shown by the brackets and slurs.

EXERCISE EIGHT.

Add inner parts to Ex. 63*b* and Ex. 64; and work out the following basses as before.

Review the remarks before and after Exercise seven. Complete the soprano before filling out the inner parts.


a.
5
FAISST
b.
–3
8
3 +8
3
8
c.
–3
3
3 5 +3
+8
d.
3
35
8
38
*1)
*1)
–3
Vivace
e.
–3
8
8
5

f.

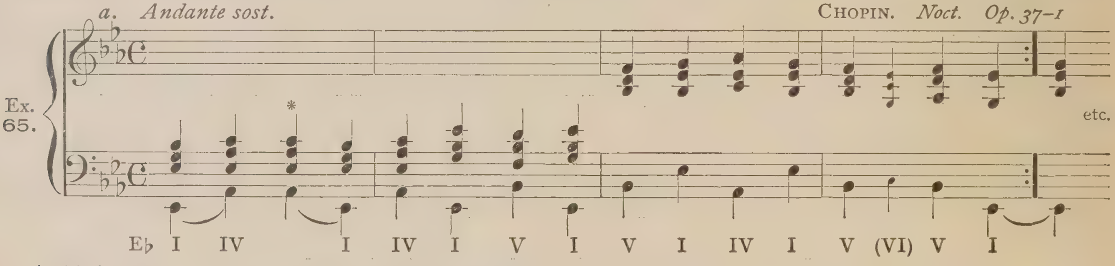
D♭ major. 2/4 I IV | I +8 I | V I | V V | I I | IV IV | I V | I ||
*2)

*1) The slurred figures indicate that the chord is to appear twice in the upper parts, in different positions. This is done for the sake of the rhythm. — *2) Work out this numbered bass in other keys also. — N.B. To this exercise, add **Original phrases,** as before.

---

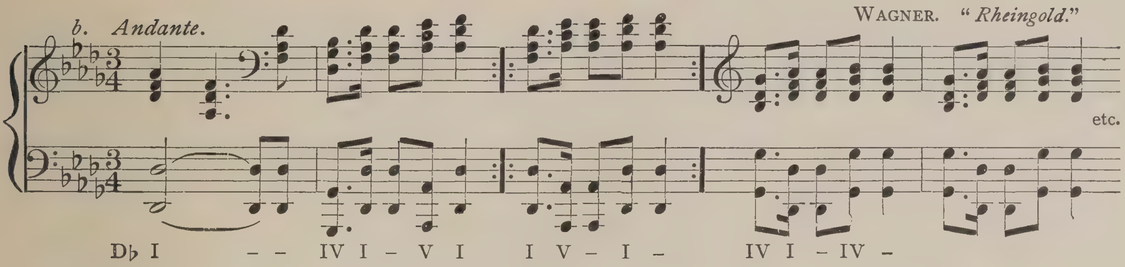
96. That these simple triads may be effectively employed in phrases, devoid of all embellishment, is proven by the following extracts from two of the most romantic composers.

Ex. 65.


a. Andante sost.
CHOPIN. Noct. Op. 37–1
*
etc.
E♭ I IV I IV I V I V I IV I V (VI) V I

* This irregular chord-repetition is probably justified by par. 87*b*.

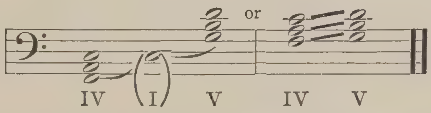
b.



WAGNER. "*Rheingold*."

CONNECTION OF THE SUBDOMINANT AND DOMINANT TRIADS.

97. The foregoing examples illustrated the connection of the tonic triad with the dominant and subdominant triads respectively; it now remains to consider the combination of these latter (non-tonic) chords with each other. This involves a new phase of chord-progression, because the IV and V are not only not related to each other by a harmonic degree, but are not even related by coincidence of tones (*i.e.*, they possess no tone in common). Lying in opposite directions from the tonic, they are *two* harmonic degrees apart, or, when placed nearer together, one scale-step apart (Ex. 8*a*). Thus:



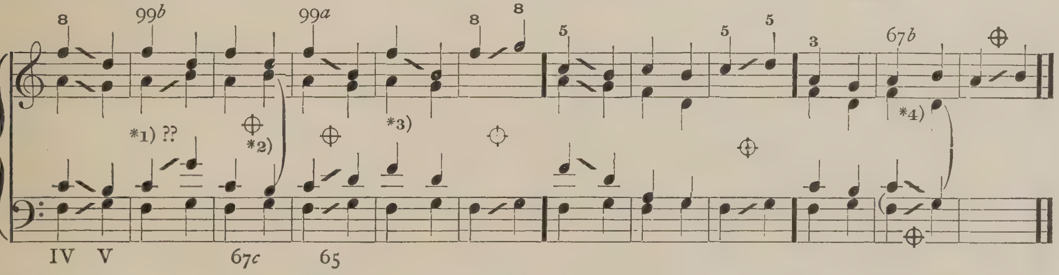
98. All chord-progressions of this kind, where there is no common tone, are recognized by their *neighboring roots* (lying side by side in the scale), and will be distinguished in this book as **Foreign progressions.** Comp. par. 78.

99. Foreign chord-progressions are more difficult than any others, because of the absence of a common tone as natural connecting-link. Hence, greater care must be taken to avoid disconnectedness, forbidden parallels, etc. In a word, the rules need to be applied with more rigor than usual.

a. Wide skips are almost entirely prohibited, in every part; and, in the case of IV–V,

b. All three upper parts should move in contrary direction to the bass.

Ex. 66.
IV–V



*1) This may be admissible, because skips in an inner part are not so noticeable as in soprano; but it is very exceptional. — *2) Doubled leading-tone. — *3) Allowable, because the fifth of the first triad is omitted. — *4) This measure is wrong, because the ear will not follow the tenor in its skip from *c* down to *g*, but associates the *c* with the following *d* of the alto, so that parallel 5ths are distinctly heard. This error, which *sounds* like successive 5ths without their actually appearing in the same pair of voices, is called *ear fifths*. They are worst in foreign progressions. Every doubtful progression in this example emphasizes the two rules of par. 99.

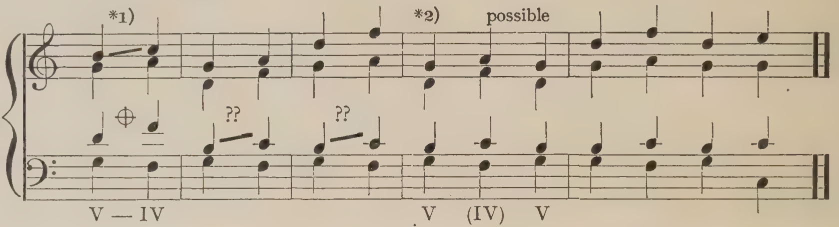
100. *a.* The reversed connection, V–IV, is unnatural, and therefore to be avoided. This is because the leading-tone in the V is so suggestive of the tonic harmony, that the IV (in which the tonic is only the chord-fifth) sounds disappointing, especially when the leading-tone is in the soprano; when it is in an inner part, the progression is less noticeable, though hardly less objectionable.

b. All chords are attracted by the tonic class, which they must ultimately reach; and that chord which lies nearest to the tonic (the V) is attracted so strongly that it can progress nowhere else, *legitimately*. Hence the canon of harmonic movement:

The chords of the *dominant class* progress legitimately into the *tonic class;* not into the subdominant. Review par. 73*b*.

The rules of par. 99 are valid here also.

Ex. 67. V–IV



*1) The direct succession of *leading-tone* and *chord-fifth,* in the prominent *soprano*, is what makes this example worse than the following ones, where it appears in an inner part.

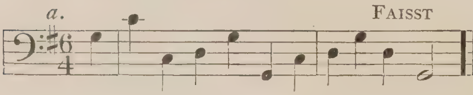
*2) The best way to excuse the unusual progression V–IV is, as seen in these last measures, to *return* immediately to the V.

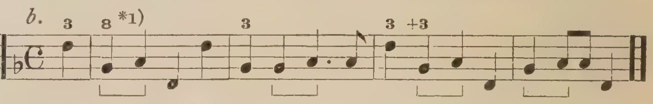
FUNDAMENTAL PRINCIPLES.

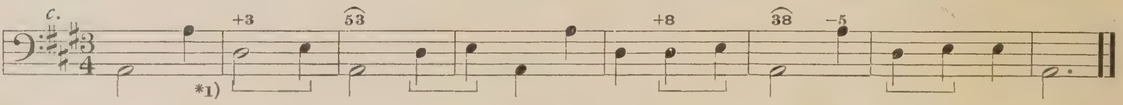
The subdominant chord is characterized by the 6th and 4th scale-steps.
In all triads, the position of the third is generally the best.
When the roots are adjacent scale-steps, the progression is *Foreign.*
In Foreign progressions no wide skips are allowed, and the upper parts move contrary to the bass.
Dominant chords progress, legitimately, only into tonic chords.

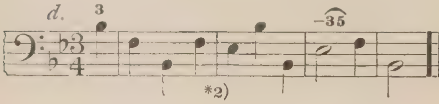
EXERCISE NINE.

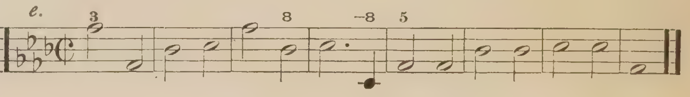
In the first bass the positions are purposely omitted. It may be worked out at the blackboard, with the teacher.



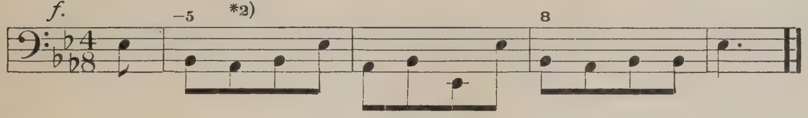








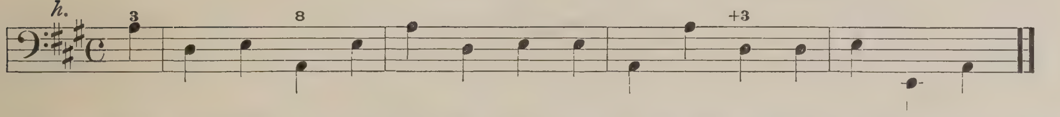
f.



g.

D major. $\frac{6}{8}$ $\overset{-3}{\text{I}}$ IV V I $\overset{3}{\text{IV}}$ V | $\overset{5}{\text{I}}$ IV V I ||
*3)

h.



*1) The Foreign progressions are indicated by brackets throughout these basses. The melody is found according to par. 99. — *2) The irregular progression V–IV. — *3) Value, dotted quarter. — To this exercise, add a number of **Original phrases,** as before.

THE PRINCIPAL TRIADS IN THE MINOR MODE.

101. The derivation of the major scale was shown in par. 18. The so-called *minor* scale (or mode) is not a natural, but an artificial scale. It is a modification of the natural major form, and is obtained *by chromatically lowering the 6th and 3rd scale-steps of major.* See Ex. 68.

This practice of "bending" the natural scale is extremely common in music, and yields significant results, which will be considered in their proper place. Glance at par. 265, etc. It is the process through which *every possible irregular scale-form is obtained.* See par. 16, 17.

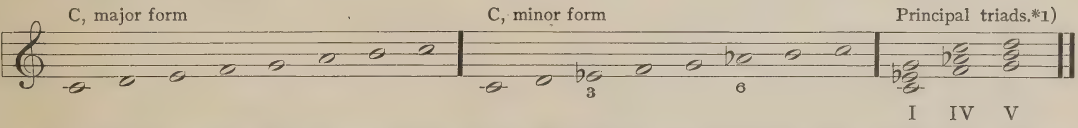
102. The lowering of the 6th and 3rd scale-steps is the simplest and easiest method of alteration, because these are *the only changes which do not impair any one of the principal triads.* These changes merely contract the chord-third of the I and IV from *major to minor intervals,* — see text below Ex. 24.

(The lowering of the 7th scale-step is also possible, in the V, but strong melodic reasons forbid tampering with the leading-tone, which must remain a half-step below the tonic in order to characterize the key, and retain its vital upward tendency.) Any other scale-change would augment or diminish some interval of a principal chord, and thus impair it.

This accounts for the great frequency and legitimacy of the minor mode. Of all the "bent" forms of major, the minor mode is the most natural and common. The alterations are not merely transient (as all others are) but may be practically permanent, creating a form of the scale which is popularly assumed to be equal in importance to the true natural (major) scale.

103. The C major scale, thus altered, assumes the following minor form; and the principal chords in minor are modified accordingly:

Ex. 68.



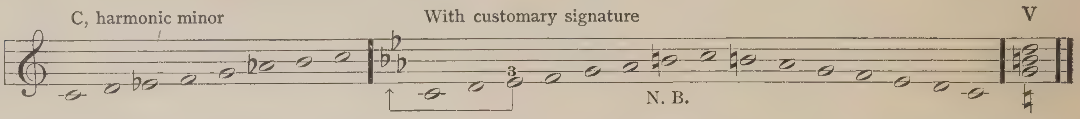
*1) The I becomes a minor triad; the IV becomes minor; *the V remains, as in the major mode, a major triad* (as a rule, at least).

104. This form of minor is called the *harmonic* minor scale, because it coincides with the principal harmonies of the key; also in distinction to the *melodic* form, to be explained later.

105. There are no specific signatures for the minor modes; key-signatures are peculiar to *major* key-notes. Often the same signature is used for both modes; but it is customary to borrow another signature for minor, — merely for convenience. The one thus chosen is *the signature of the third scale-step of minor:* for C minor the signature of *e-flat,* its (lowered) third step, — three flats.

This "customary" signature is the most convenient one that can be found; but it attacks the 7th scale-step also, and therefore an *accidental must always precede the leading-tone, in the harmonic minor*, to restore it to its proper place in the scale. Thus:

Ex. 69.



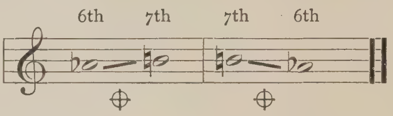
It must be distinctly understood that this signature does not indicate E-flat major. It is *borrowed* from that key, for convenient application to C minor. (The keys whose signatures thus correspond, are called "relative" major and minor. See later.)

106. The downward tendency of the 6th scale-step is made more urgent in minor (in consequence of lowering it), for which reason it might be called the "dominant leading-tone."

a. In minor *the 6th scale-step* (*dom. leading-tone*) *must progress downward*, — excepting in chord-repetition; and it should not be doubled.

b. It is forbidden to progress from one leading-tone to the other (7th scale-step to the 6th, or 6th to 7th).

Ex. 70.



Not only because each of the tones would progress in the wrong direction, but because the succession involves an unnatural chromatic interval (an augm. 2nd) which it is difficult to sing true, and which sounds peculiar. This error is best avoided by close attention to par. 67*a*, *b*.

This succession may be produced on an instrument, it is true, but it always sounds unnatural, and is appropriate only where a weird effect is desired.

107. The chord-progressions in minor are of precisely the same quality as in major, and are executed *in precisely the same manner*, according to the same rules (par. 106*a* merely emphasizes a former rule).

FUNDAMENTAL PRINCIPLES.

The minor scale is derived from the major scale of the same tonic.

The harmonic minor scale differs from the major at the 6th and 3rd steps, which are *lowered* a half-step.

The dominant chord is alike in both modes.

The 6th scale-step in minor *must* progress downward.

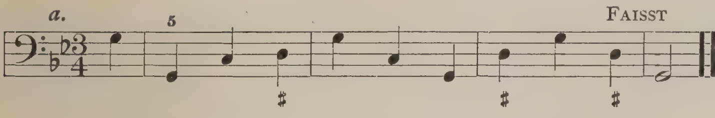
The two leading-tones (6th and 7th steps) must not succeed each other in the same part.

There is no essential difference in the treatment of the major and minor harmonies.

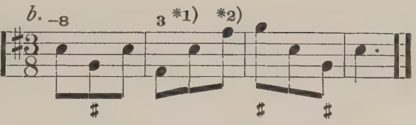
EXERCISE TEN.

The signatures prove that the following basses are in *minor*. The accidentals below certain bass tones refer to the third of the chord (in bass *a*, *f*♯, the leading-tone; comp. Ex. 69), and are rendered necessary by the absence of the corresponding accidental in the signature. Review par. 105. The accidental must appear in that upper part which has the leading-tone.

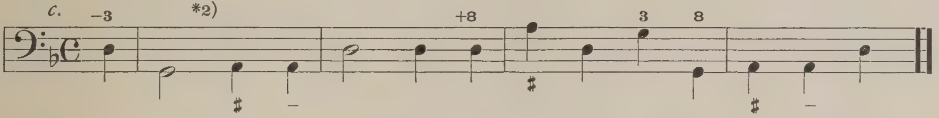
a.



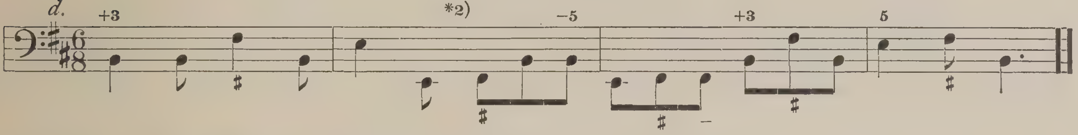
b.



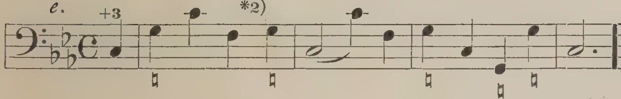
c.



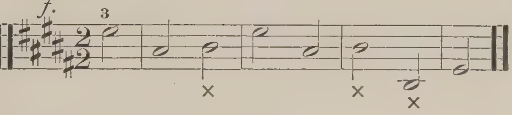
d.



e.



f.



g.

F♯ minor. $\frac{3}{4}$ I^{8} V | I IV^{8} | V I^{3} IV^{+3} | I^{5} I^{+8} | IV^{3} V | I I I | V ⁀ V I V | I ||
*3) under the first I; *4) under the second-last measure, bracket under V I.

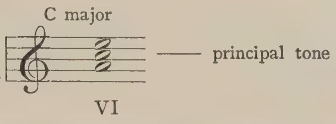
*1) 106*a*. — *2) 99*b*. — *3) Rhythm 𝅗𝅥 ♩, of course. — *4) The bracket ⎵ indicates that both chords belong to *one beat*. The tie ‿ signifies here, as elsewhere, that the chord is to be *held*, not reiterated; the rhythm of this measure is therefore | ♩‿♫ ♩ | or | ♩. ♪ ♩ |.

To this exercise, add a number of **Original phrases.**

The Subordinate Triads, in Major.

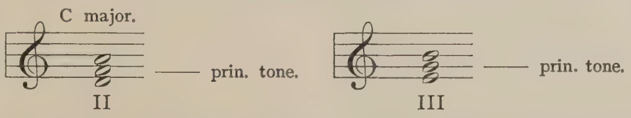
108. See Ex. 33. The three subordinate triads should not be regarded as new and independent harmonies, but merely as modified forms of the principal chords. They are the relatives or parallels of the latter, and serve chiefly as substitutes for them, for variety. The relation is defined by the principal scale-step which each subordinate chord contains. In the VI of C major, for example, the most important of its three tones, in the *key*, is its *chord-third*, the tonic note *c:*

Ex. 71.



This proves that the ruling element in this chord is the tonic, which places it among the chords of the tonic class. The same test, with the other two subordinate chords,

Ex. 72.

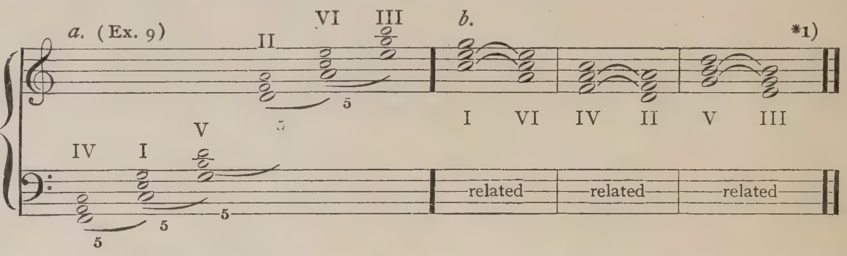


shows that the II belongs to the subdominant, the III to the dominant class. That is:

The I and VI together represent the Tonic class;

The IV and II together represent the Subdominant or Second-dominant class; and
The V and III together represent the Dominant class. See par. 70.

Ex. 73.



*1) It will be observed that the "related" chords are the exponents of those major and minor modes which have the same signature.

109. The functions of the related triads, though not identical, are so very similar as to justify this classification. The subordinate chords act mainly as *substitutes* for their respective principal chords, and deduce almost all their harmonic regulations from the latter.

The Second-dominant Triad, II.

110. *a.* This is in reality the *fundamental* representative of the subdominant or Second class, as will be seen later on. Comp. par. 90.

b. The best position is that of the *third.*

c. The octave-position, in a subordinate triad, is more objectionable than in a principal one, because undue prominence is given to a subordinate step of the scale, in placing it thus in both outer parts. Still, the octave-pos. of the II is not forbidden, because it is the best of the subord. triads.

d. The position of the fifth is very objectionable in this triad.

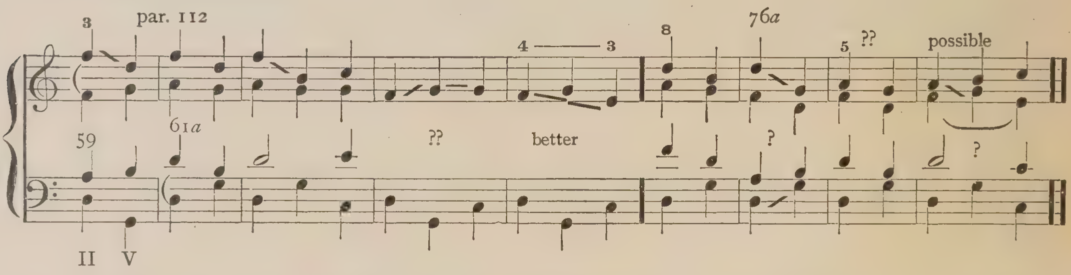
111. Either the third or root may be doubled. No interval can be omitted. Review par. 59, 60, 61*a*.

112. Being a subdominant chord, the II contains the 4th and 6th steps of the scale. *Care must be taken to lead them downward,* — especially in soprano.

113. The following examples illustrate the *progressions* of the II, in the order of natural preference. See par. 109.

a. The **Normal progression,** II–V (par. 78).

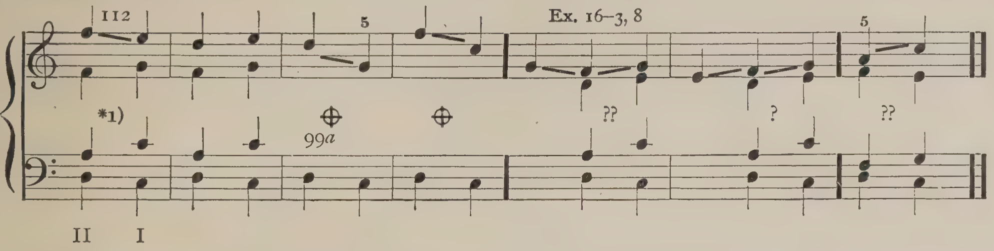
Ex. 74. II–V



Measure No. 3 is good, because of the skip *down* to the leading-tone (par. 31). No. 5 illustrates a very common movement, — the *deferred resolution.* (The term "resolution" is applied to the progression which fulfils the tendency of any active tone.) The 4th scale-step in soprano reaches the 3rd step indirectly, after the interposition of one convenient tone. No. 4 is doubtful, because the resolution is entirely evaded. No. 9 is an unusual exception to several rules: the alto has the deferred resolution of step 4; the soprano may be justified by Ex. 16–2.

b. The progression to the tonic triad. This is a **Foreign progression,** and a rare one. It is rather singular, that no other chords can progress into the I excepting the V and the IV (the two triads related to it by the harmonic degree). The II abhors the *direct* progression into the I, always preferring to move first into the V.

Ex. 75. II–I.



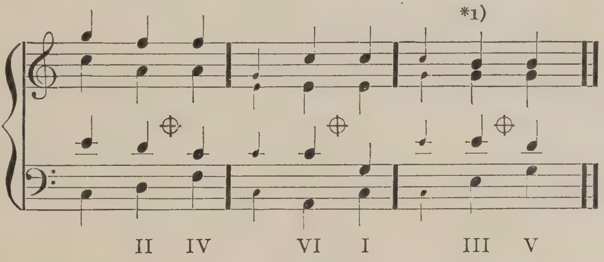
*1) In every foreign progression excepting IV–V (Ex. 66, where *both are prin. triads*) it suffices to lead *two* upper parts contrary to the bass; the other one moves in 3rds parallel with the latter.

c. The progression to the IV.

This progression, from the II into *its own principal triad*, is not good.

When the two representatives of the same class are connected, the subordinate triad should *follow*, not precede, its own principal triad. In other words: of the two parallel chords, the principal triad comes first. Thus, the IV can progress to the II, but the II cannot progress to the IV. And the same applies to the other classes; I–VI is correct, but VI–I is wrong; V–III is allowed, III–V is incorrect.

Ex. 76. II–IV.

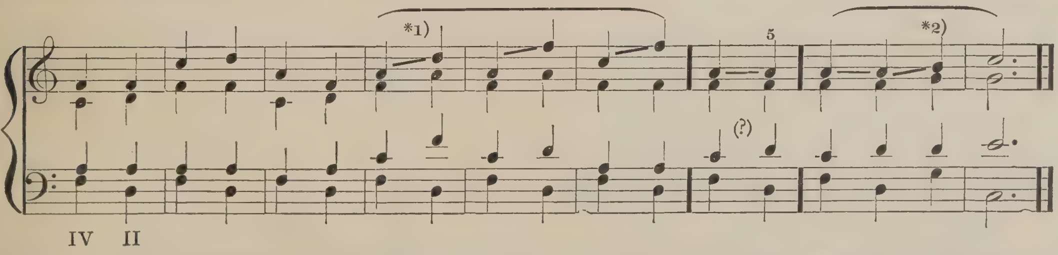


*1) This is a rare exception to par. 73*c*.

114. The triads which *introduce* (*i.e.*, precede) the II are exhibited in the following examples; arranged, as before, in the order of preference.

a. From its *relative* prin. triad, the IV.

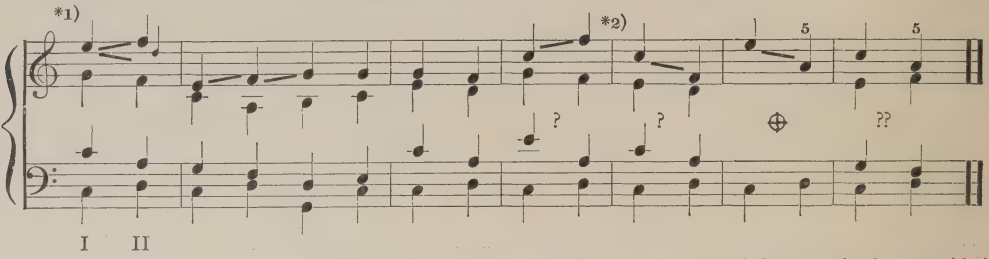
Ex. 77. IV–II.



*1) The connection of *relative triads* is considered nearly equivalent to *chord-repetition*. Therefore, the licences of par. 68 are valid here, with slight limitation. This accounts for the wide leaps in the soprano in these three measures, — even measure 6, from the chord-fifth *c*. It also tends to excuse the pos. of the fifth in the II (measure 7). — *2) Comp. Ex. 74–9.

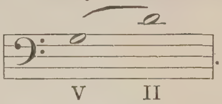
b. From the tonic triad: a **Foreign progression.**

Ex. 78. I–II



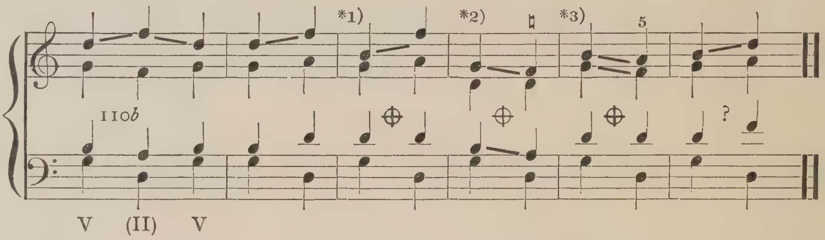
*1) Ex. 75, Note *1). — *2) These wide skips are a little less objectionable than usual, because both tones (*f–c*) are principal steps of the scale.

c. From the dominant triad.

This Progression (V–II) is the counterpart of Ex. 67 (V–IV), because the IV and II are parallels, and in each case the V does not progress, as it should, to a *tonic* chord (par. 100*b*). Nevertheless, the progression V–II may be more readily effected than V–IV, on account of the relation of a harm. degree which the triads represent .

The first measure of the following example shows the most rational connection, similar to Ex. 67–4, 5.

Ex. 79. V–II

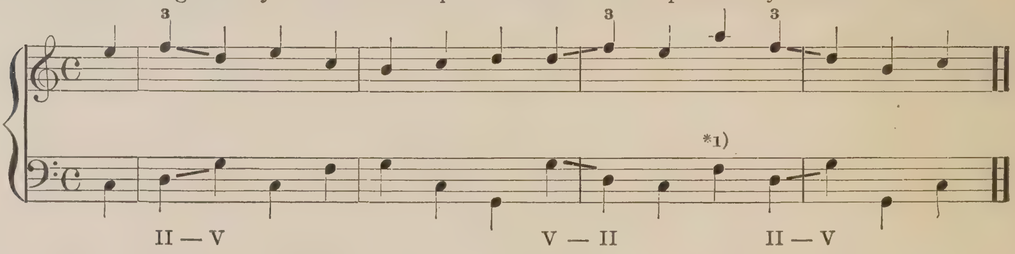


*1) The skip from the leading-tone is wrong, because it is not chord-repetition.

*2) This soprano is wrong. Only when the V progresses to a tonic chord, has it the effect of a *dominant* chord. In this measure it sounds like the I of G major, and the *f*♮ in soprano (instead of *f*♯) is therefore disagreeable. When the *f* is introduced with a skip from below, as in the first two measures, the impression of G major is weakened. — *3) Here the incorrect progression of the leading-tone, followed by the forbidden position of the 5th, renders the false impression of the key still more palpable.

115. The following melody illustrates the predominance of the *position of the third* in the II.

Ex. 80.



*1) In adding the inner parts, the third of this chord must be doubled.

FUNDAMENTAL PRINCIPLES.

The VI is a tonic chord, the II a subdominant or Second-class chord, and the III a dominant chord.

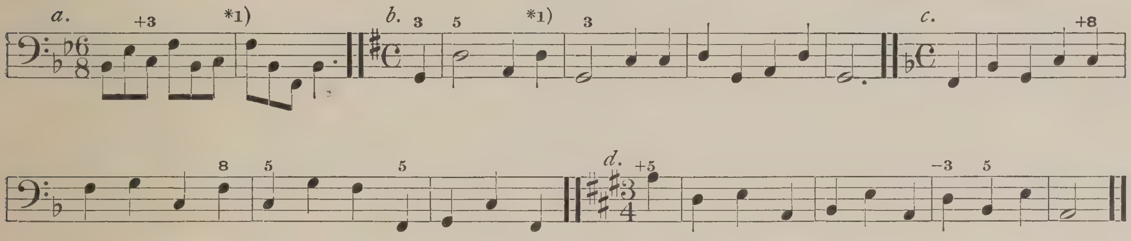
In the II, the position of the 3rd is the best; that of the 5th rare.

The downward tendency of scale-steps 4 and 6 must be respected in all second-dominant chords.

A subordinate triad does not progress into its own principal triad.

The V should progress to a tonic chord, — not to the second-dominant chords.

EXERCISE ELEVEN.



e.

D♭ major. $\frac{2}{4}$ $\overset{-3}{\text{I}}$ I | IV $\overset{+8}{\text{II}}$ | V V | I I | IV $\overset{-8}{\text{IV}}$ | $\overset{3}{\text{II}}$ $\overset{5}{\text{V}}$ | I V | I ||

*1) Par. 112.

Bass *e* should be worked out in several other keys, with other positions.

To this exercise, add a number of **Original phrases.**

THE SUBMEDIANT TRIAD, VI.

116. Review par. 109. *a.* The best position is that of the *third.*

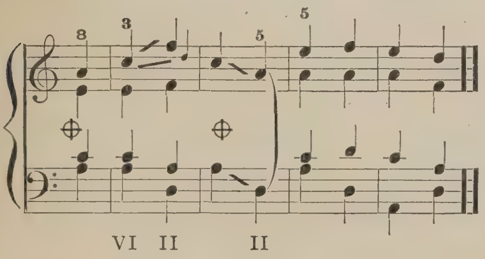
b. The octave-position is forbidden.

c. Third or root may be doubled. Par. 61*a.*

117. The progressions of the VI are exhibited in the following examples, in the order of their preference.

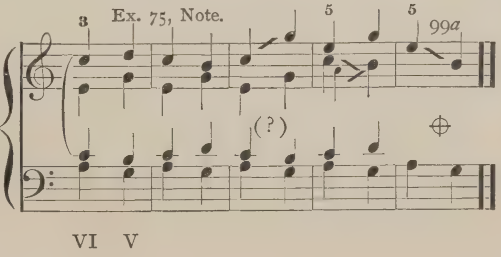
a. The **Normal progression** (to the II).

Ex. 81. VI–II



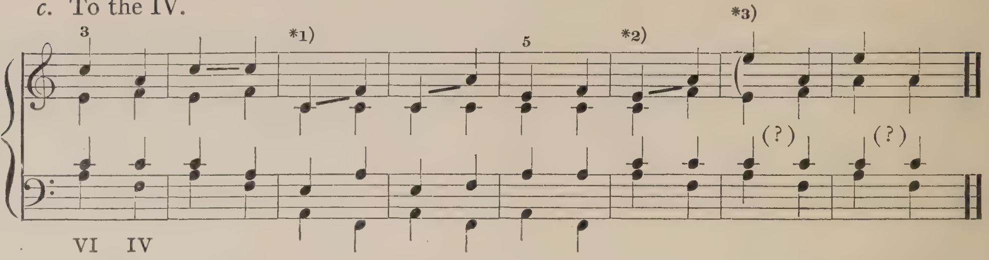
b. To the V: **Foreign progression.**

Ex. 82. VI–V



c. To the IV.

Ex. 83. VI–IV



*1) Par. 31 excuses these wide leaps in soprano. — *2) Also excusable, though the first tone (*e*) is a chord-fifth. — *3) Not very good, because of the wide leap down to step 6, and the irregular duplications.

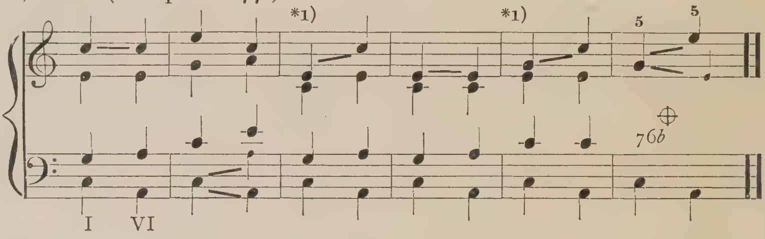
d. To its own *relative*, the I. Forbidden progression. See Ex. 76.

---

118. The VI may be introduced (preceded) by the other triads, in the following order:

a. By its *relative*, the I. (Comp. Ex. 77.)

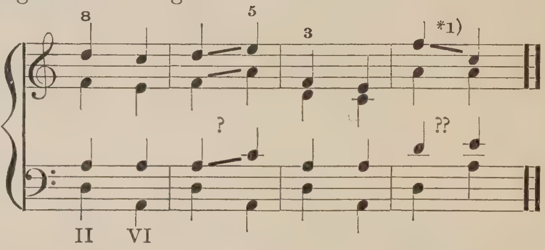
Ex. 84. I–VI



*1) See Ex. 77, Note *1).

b. By the II: an ascending harmonic degree.

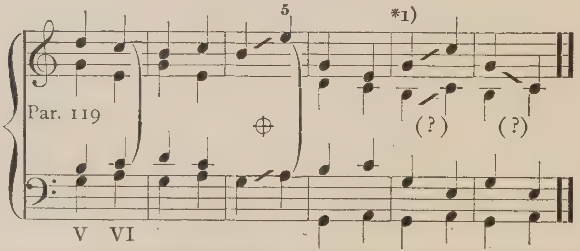
Ex. 85. II–VI



*1) The soprano is unnatural, because it stumbles *beyond* the expected half-step progression, *f–e* (as in the measure before). The 4th and 6th steps should proceed *diatonically* downward, whenever they can.

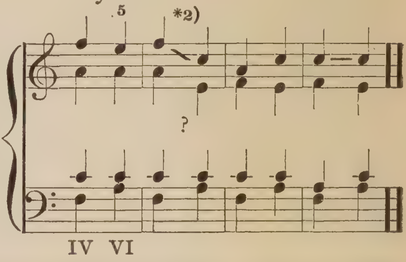
c. By the V: **Foreign progression.**

Ex. 86. V–VI



d. By the IV.

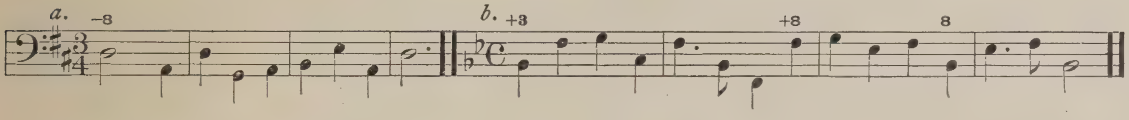
Ex. 87. IV–VI

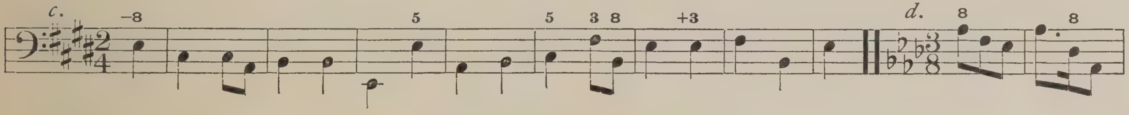


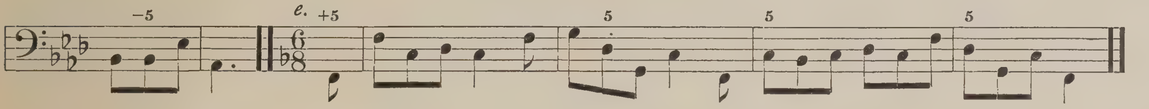
*1) These two measures violate par. 99*a*, but are excused by the quality of the tones in the leap, — tonic and dominant. Comp. par. 76*c*. — *2) Ex. 85, Note *1).

119. The chord-progression in Ex. 86 is no contradiction of the spirit of par. 73*b*. The VI is a *tonic* chord, and therefore is quite as apt to follow the V as is the I itself. It is often called the *Deceptive* progression, — V–VI, where V–I is expected.

EXERCISE TWELVE.







f. G major, and other keys.

𝄵 I | $\overset{+5}{\text{I}}$ $\overset{3}{\text{I}}$ II V | VI II V | I VI IV IV | $\overset{-5}{\text{II}}$ II $\overset{3}{\text{V}}$ I ||

To this exercise, add a number of **Original phrases.**

THE MEDIANT TRIAD, III.

120. This chord lies most remote from the tonic centre, and is therefore the weakest, least frequent, and most embarrassing of all the triads. See par. 69*b;* Ex. 73*a*. It is usually brief, and creates the impression of an intermediate "passing" chord, in the following connections.

121. The III may progress:

a. to the VI (the **Normal progression**); and

b. to the IV, *i.e.*, the *nearest prin.* triad (Foreign progression).

122. It may be preceded:

a. by the I (because the I can pass into every chord, — par. 71);

b. by the VI (an ascending harm. degree); — and

c. by its own principal triad, the V.

123. The position of the III depends upon the chord which *follows* it.

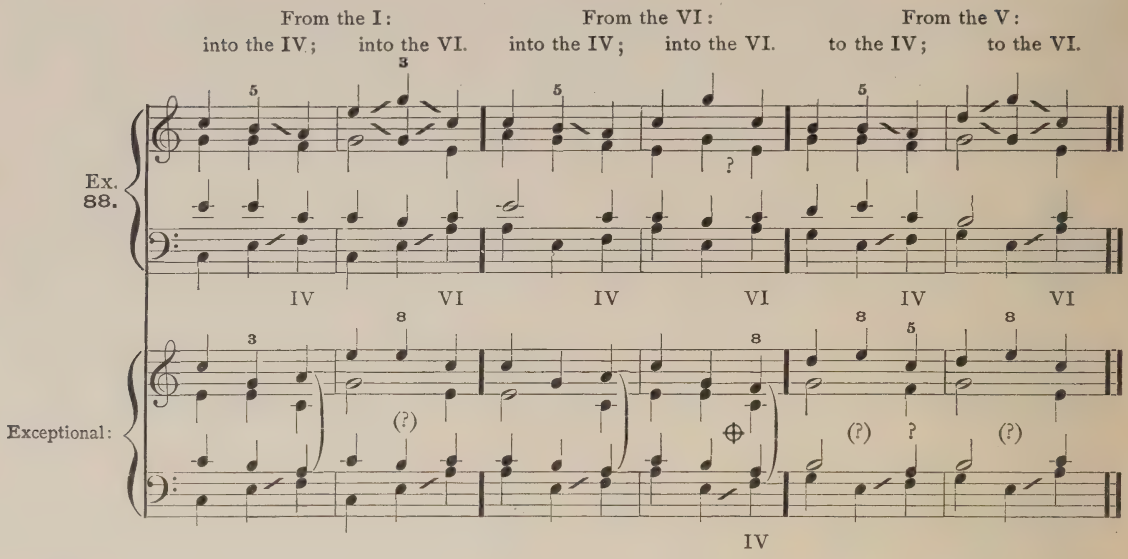
a. *Before the IV*, the III takes the position of the *fifth* (exceptionally the pos. of the *third*).

b. *Before the VI*, the III takes the position of the *third*.

c. The triad which *follows* the III *is always best in the position of the third.*

Thus: $\overset{5}{\text{III}}$—$\overset{3}{\text{IV}}$, or $\overset{3}{\text{III}}$—$\overset{3}{\text{IV}}$; and $\overset{3}{\text{III}}$—$\overset{3}{\text{VI}}$.

Ex. 88.


From the I:
into the IV;
into the VI.
From the VI:
into the IV;
into the VI.
From the V:
to the IV;
to the VI.
5
3
5
5
?
IV
VI
IV
VI
IV
VI
Exceptional:
3
8
8
8
5
8
(?)
(?)
?
(?)
IV

124. *a.* From this it is seen that the III has no connection with the II. The progression would be *foreign*, and *both chords are subordinate.* Ex. 88–4 is somewhat doubtful, because there are too many weak chords in direct succession.

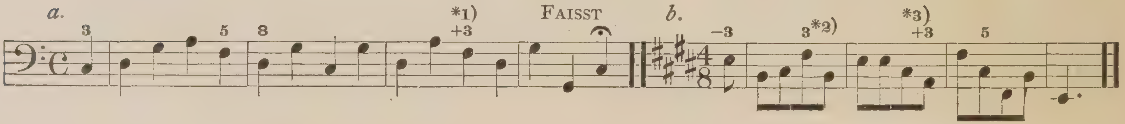
b. The Foreign progression of the III (into the IV) is more common, and apparently better, than its Normal progression (into the VI), — probably because the weak III obtains more support from the *principal* triad (IV), especially as it lies nearer. Compare par. 396.

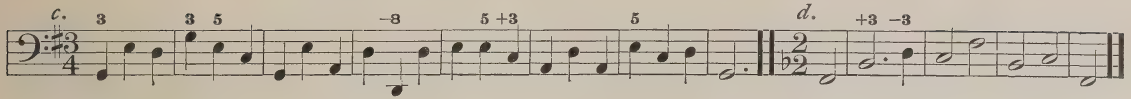
125. The 7th scale-step, as chord-fifth in the III, seems to forfeit much of its characteristic quality as leading-tone. As seen in Ex. 88, its movement is generally *downward* (as in Ex. 16–1), — invariably so when the IV follows, on account of successive 5ths with the bass.

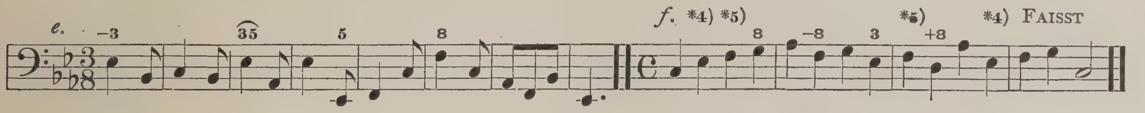
FUNDAMENTAL PRINCIPLES.

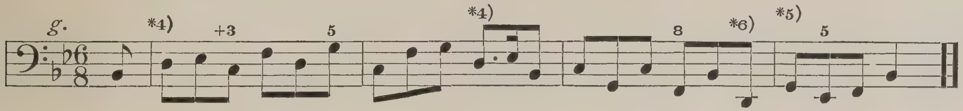
The I passes into *all* other chords. The V passes into I and VI. [illegible]
The IV passes into every chord, excepting into the III. + VI = [illegible]
The II passes into V and VI; and follows the IV, I and VI.
The VI passes into every chord, excepting the I; and follows *every* triad. II ? only [illegible]
The III passes into IV and VI; follows the I, VI and V. VI ? [illegible]
The best position for all triads is that of the *third;* especially for subordinate triads.
In the VI, the octave-position is forbidden; in the II, the position of the fifth is poor.
In the III, the leading-tone usually descends.

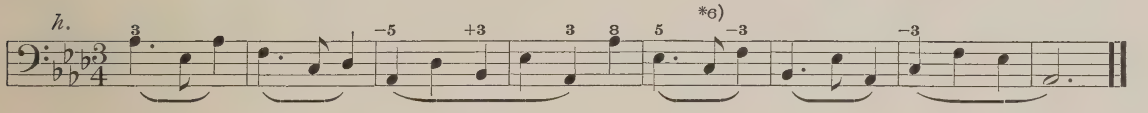
EXERCISE THIRTEEN.

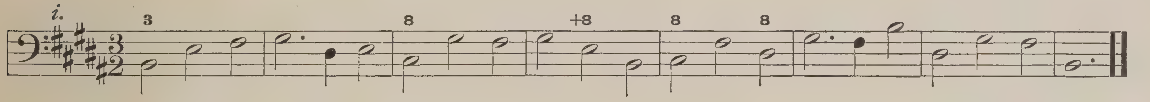

a.
3
5
8
*1)
+3
FAISST
b.
−3
3*2)
*3)
+3
5

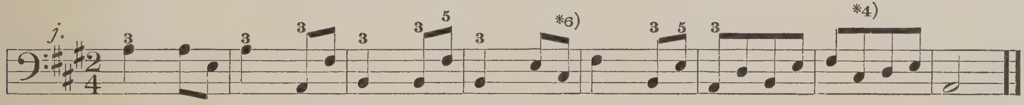










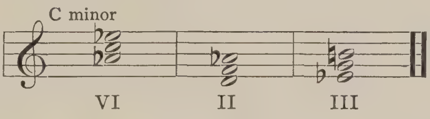


*1) Double the 3rd in this chord. — *2) Par. 112. — *3) Position of the third. 116*b*. — *4) 123*a*. — *5) 123*c*. — * 6) 123*b*. — To this exercise, add a number of **Original phrases.**

THE SUBORDINATE TRIADS IN MINOR.

126. The intervals of these triads are defined according to the harmonic minor scale (Ex. 69), and are as follows (6th and 3rd scale-steps lowered):

Ex. 89.

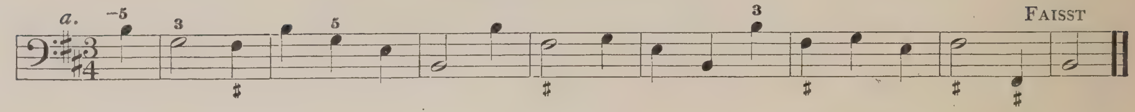


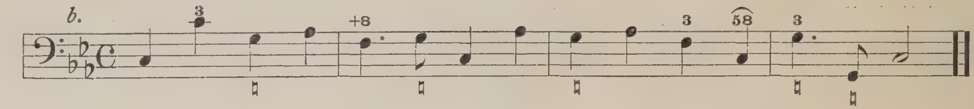
127. The VI is a major triad, the II a diminished, and the III an augmented triad (see par. 50). The latter two are discords (although only three-tone chords), because they contain respectively the dissonant intervals of a diminished and an augmented fifth (46*a*). Therefore, their consideration must be deferred until the next Division. Review the text following Ex. 24.

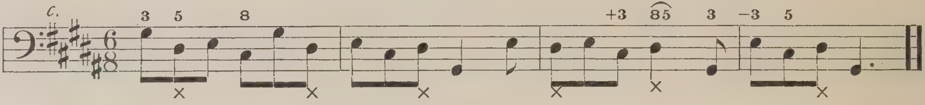
128. The VI is, then, the only subordinate triad that may be used in minor, at present. Its treatment in minor is *precisely* the same as in major, — excepting in its connections with the II and III, which are regulated by the rules of discords, and are omitted here.

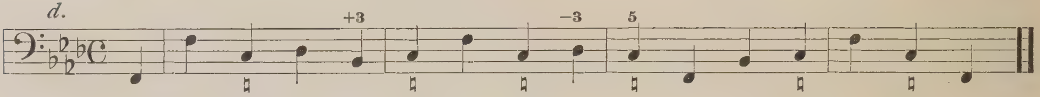
Review par. 106*a*, *b*.

EXERCISE FOURTEEN.


a.
−5
3
5
3
Faisst




c.
3
5
8
+3
85
3
−3
5



To this exercise, add a number of **Original phrases.**

THE PERIOD-FORM.

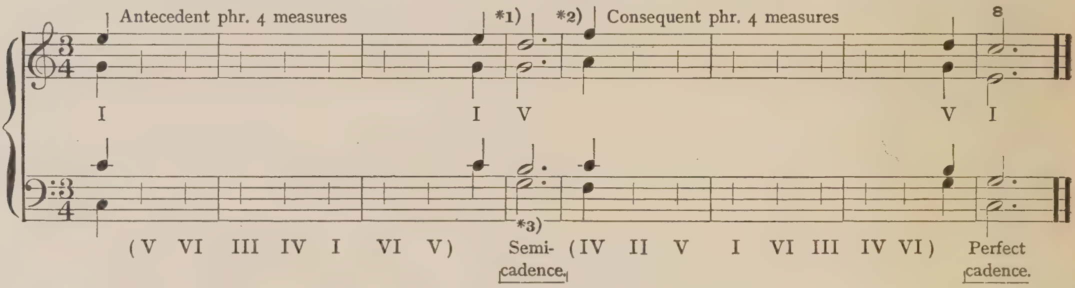
129. The period, or double-phrase, consists of two phrases, and is therefore usually eight measures in length. The first of these is called the Antecedent phrase. It has its cadence, like any phrase, on an accent of the fourth measure; but as it is only the first half of the entire sentence, its cadence must be less complete than the final (perfect) cadence. Review par. 79. Every such lighter rhythmic interruption is called a semi-cadence.

The second phrase is called the Consequent, and closes with the perfect cadence.

130. A semi-cadence differs from the full stop only in the *choice of chords*. As a rule, any succession of fairly strong chords will constitute a semi-cadence, but the most appropriate and common chord is the *dominant*, — preceded by any suitable chord (I, IV, II, VI). The cadence-chord falls on an accent, of course.

131. There is a close general relation between the two phrases, which represent "question" and "answer." They are likely to begin on the same beat, and close on corresponding accents. The following example is the outline of an 8-measure period, in 3–4 time, with the dominant semi-cadence:

Ex. 90.


Antecedent phr. 4 measures
*1)
*2)
Consequent phr. 4 measures
8
I
I
V
V
I
*3)
(V VI III IV I VI V)
Semi-cadence.
(IV II V I VI III IV VI)
Perfect cadence.

---

*1) This semi-cadence, I–V, is harmonically the reverse of the perfect cadence (V–I) and therefore constitutes the most consistent antithesis to the latter. The V may, however, be preceded by any other good chord. A semi-cadence upon the IV is heavy; its relative, the II, although a subordinate chord, is better. The I can be employed as semi-cadence chord, but *not in octave-position*. It is not very good, however, as it furnishes too little contrast with the perf. cadence. Its relative, the VI, is somewhat better. The III, as intimated, is too weak (par. 120). The student can substitute these different forms of the semi-cadence for the one given in Ex. 90, and judge of their comparative effect.

*2) Here the unusual succession V–IV is turned to account at the point where the narrow relation of chord to chord is overbalanced by the broad relation of phrase to phrase. Comp. par. 87*b*, which indicates exactly the same principle.

*3) This longer note is necessary for the semi-cadence chord, in order to interrupt the rhythmic movement.

FUNDAMENTAL PRINCIPLES.

Of the subordinate triads in *minor*, only the VI is a concord.

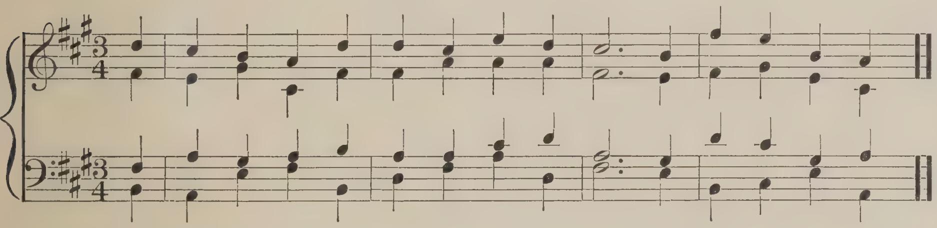
The semi-cadence is *any* succession of good chords, in cadential location, that do not form the *perfect* cadence.

The best semi-cadence chord is the V.

EXERCISE FIFTEEN.

A. Complete Ex. 90, in C, B♭, A♭ and F♯ major; using a different semi-cadence in each version.

B. Point out the general errors in the following:



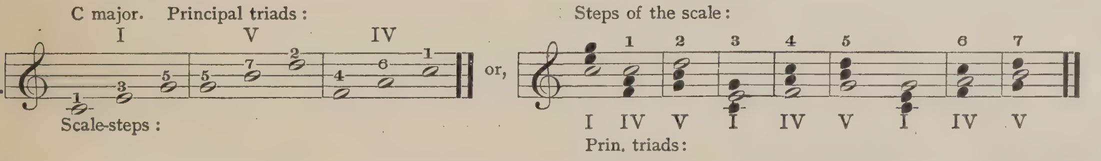
Time-signature ?
Cadences ?
Chord-successions ?
Positions ?
Duplications ?
Consecutives ?

C. Write a number of **Original periods.**

THE HARMONIZING OF MELODIES. PRINCIPAL TRIADS.

132. The harmonizing of a melody consists in assigning to each successive tone its proper chord. The scale-steps which each principal triad contains are shown in the following table:

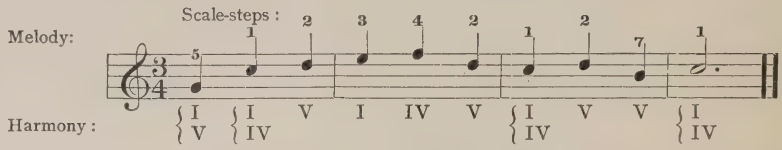
Ex. 91.



The first scale-step occurs in *two* primary chords, the I and IV; and the fifth scale-step occurs both in the V and the I. At these places, of course, choice must be made between the two chords; but all the other steps of the scale represent, originally, but one primary chord.

133. The application of this table to any given melody defines the harmonic basis, or bass part. Thus:

Ex. 92.



134. Where a choice is to be made between two possible triads (at the 1st and 5th scale-steps) the following rules must be considered:

a. The very first chord is the I; the last two chords the V–I (par. 81*c*).

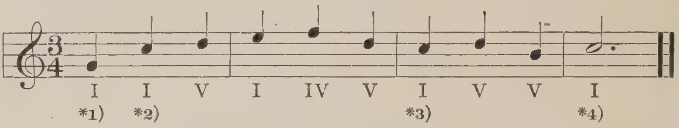
b. The rules of chord-succession and chord-repetition must be respected (par. 100*a*, par. 85).

c. The chords must not be so chosen that any two successive melody-notes would be *chord-fifths;* successive roots (octave-positions) are also hazardous, but not impossible, — Ex. 47, Note *3). See also par. 99*a*, *b*.

d. A *wide* leap in the melody almost always indicates *chord-repetition* (par. 84).

Applied to Ex. 92 the result is:

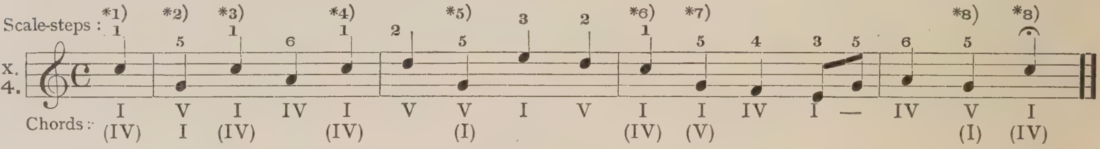
Ex. 93.



*1) The V is cancelled by par. 134*a*. — *2) The IV would make parallel 5ths with both the preceding and following chord. See also 134*d*. — *3) The IV is cancelled by 134*b* (V–IV); also by 134*c*. — *4) Par. 134*a*.

Further:

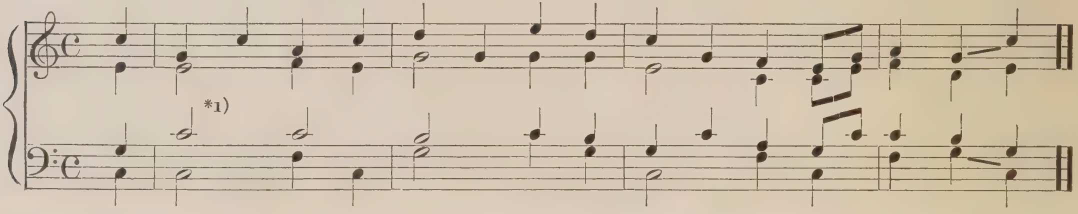
Ex. 94.



*1) Begin with the I. — *2) Either chord is possible. See par. 134*d*. — *3) In either case the IV is not feasible. Also because of faulty repetition, into the following accent. — *4) The IV makes 5ths with the next chord. — *5) The I is cancelled by the faulty repetition into the following accent. The *first* of these wide leaps calls for chord-repetition (134*d*); the next wide leap cannot be the same chord. — *6) The IV will not follow the V (with *parallel* soprano). — *7) The V will not pass into the IV. — * 8) Perfect cadence, V–I.

Example 94, completed, would appear thus:

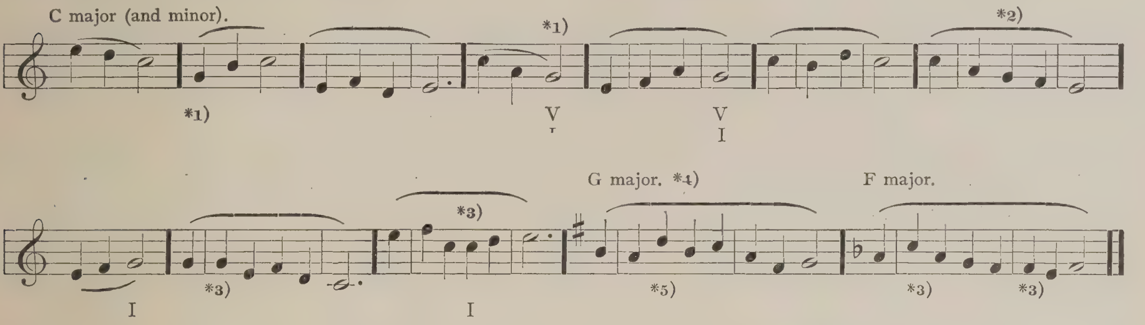
Ex. 95.



*1) Observe how the common tones, in the lower parts, are held as *longer notes*, instead of being restruck. This provides very necessary rhythmic variety. But see par. 5, Ex. 5 and Notes.

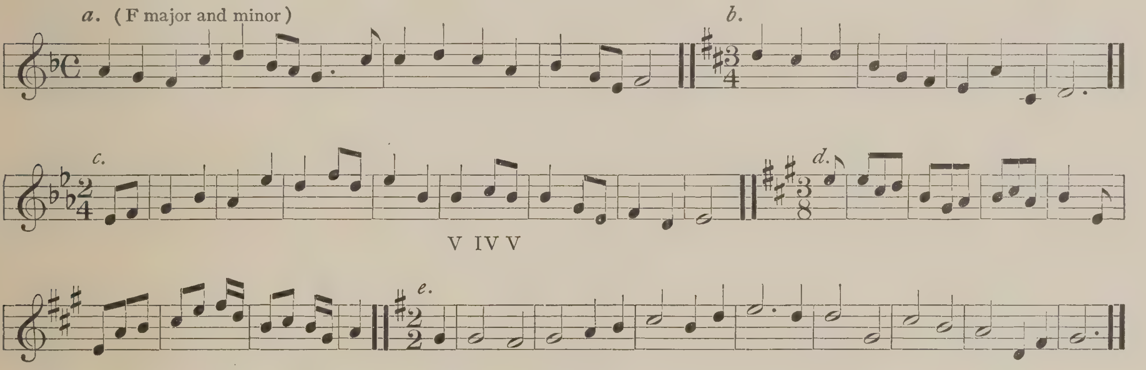
EXERCISE SIXTEEN.

A. Harmonize the following melodic fragments *at the piano*, at sight, with the three principal triads. First in major, and then in minor. Ex. 91 should be placed where it can be seen and referred to. The left hand may take the *bass alone*, and the right the three upper parts together.



*1) Either V or I. — *2) Must be the I, because the IV follows. — *3) Change the chord at these accents. — *4) The *key* defines the scale-steps, — and chords. — *5) The V, because of the wide leap.

B. Add the bass and inner parts to the following melodic phrases, using *principal triads* only, as in Exs. 93 and 94. *See par. 242.*



Each of these phrases, when completed, must be played in the corresponding *minor* mode.

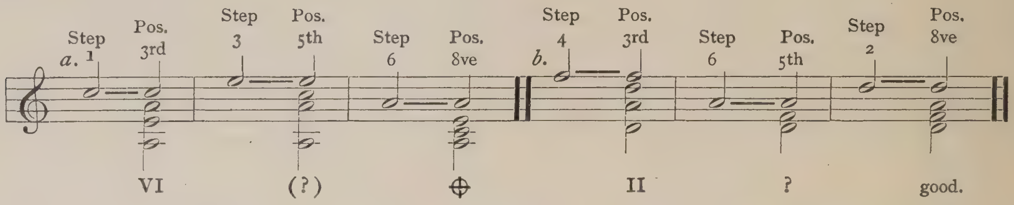
MELODIES, WITH SUBORDINATE TRIADS.

135. The application of the subordinate triads, in harmonizing a melody, is regulated chiefly by the fact that they appear as *substitutes* for their respective principal triads. This is strictly true of the VI and III, whereas the more important II can also be used as independent chord. Of significance is also the fact that they are limited, as a rule, to the position of the *third*. The details of their use are as follows:

136. *a.* The VI can be used in place of almost any I, but especially at the *first scale-step* (keynote). It is possible, but rare, at the 3rd scale-step (position of the 5th); impossible at the 6th step (octave-position). Ex. 96*a*.

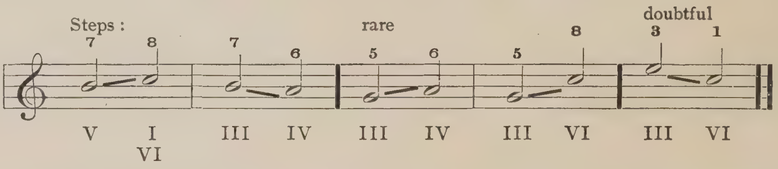
b. The II is used in place of the IV, especially at the *fourth scale-step.* It is also good at the *second step* (its own step, as 8ve-position). It is possible, but rare, at the 6th scale-step (position of the 5th). Ex. 96*b*.

Ex. 96.


a.
Step 1
Pos. 3rd
Step 3
Pos. 5th
Step 6
Pos. 8ve
b.
Step 4
Pos. 3rd
Step 6
Pos. 5th
Step 2
Pos. 8ve
VI
(?)
⊕
II
?
good.

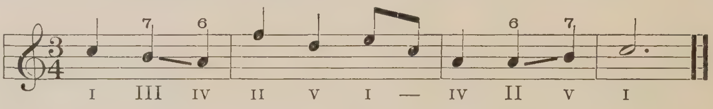
c. The III is applied chiefly to the *leading-tone when it descends diatonically* (comp. Ex. 88–1, 3, 5). When the 7th scale-step descends, thus, it cannot well be harmonized with the V (as is otherwise *always* the case), hence the substitution of its relative, the III. It is possible, but rare, to use the III at the fifth scale-step (position of the 3rd, — see Ex. 88–2, 4, 6, 7, 9); extremely rare at the third step (8ve-position).

Ex. 97.


Steps:
7 8
7 6
rare
5 6
5 8
doubtful
3 1
V I
VI
III IV
III IV
III VI
III VI

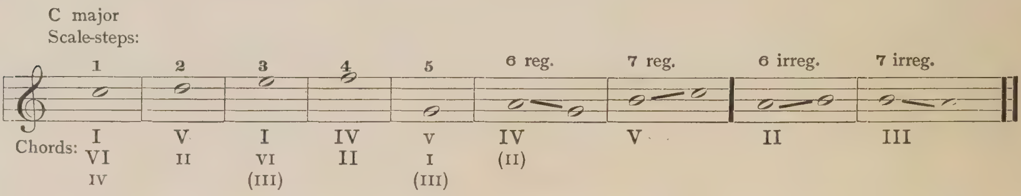
137. Just as the 7th scale-step, when it progresses exceptionally *down to 6*, cannot be harmonized with the V, but must be its relative, the III, — so the 6th scale-step, when it progresses exceptionally *up to 7*, cannot be the IV, but must be its relative, the II. Thus:

Ex. 98.


7 6
6 7
I III IV II V I — IV II V I

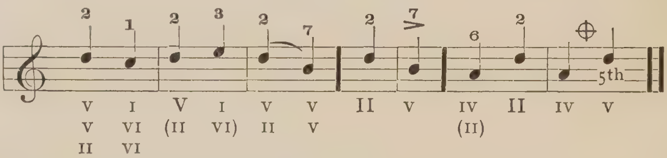
138. The complete table of all the triads, in major, is then as follows:

Ex. 99.


C major
Scale-steps:
1 2 3 4 5
6 reg.
7 reg.
6 irreg.
7 irreg.
Chords:
I VI IV
V II
I VI (III)
IV II
V I (III)
IV (II)
V
II
III

139. Whether the second scale-step is to be harmonized with the V or II depends mainly upon the note which *follows*, or upon the rhythm. Thus:

Ex. 100.


2 1 2 3 2 7 2 7 6 2
⊕
5th
V V II
I VI VI
V (II
I VI)
V II
V V
II
V
IV (II)
II
IV
V

140. In minor, the VI is the only subordinate chord used at present (par. 128).

FUNDAMENTAL PRINCIPLES.

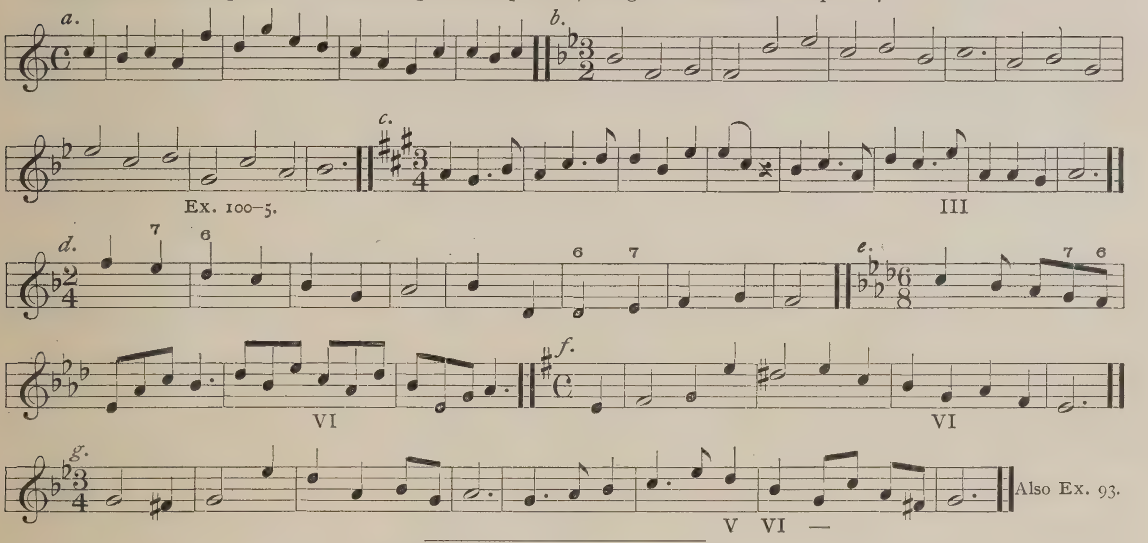
The important scale-steps (1, 5, 4, 2) may be harmonized with their own triads (I, V, IV, II); the unimportant steps (3, 6, 7) are usually chord-thirds.

The three principal steps (1, 5, 4) may be harmonized with either chord of their class (1 — I, VI; 4 — IV, II; 5 — V, [III]).

Only the important steps 1, 5 and 2 can become the position of the 5th, — excepting at the irregular progression of active steps 6 and 7, which must be chord-fifths.

EXERCISE SEVENTEEN.

Add bass and inner parts to the following melodic phrases, using all six triads. *See par. 242.*



The Inversions of the Triads.

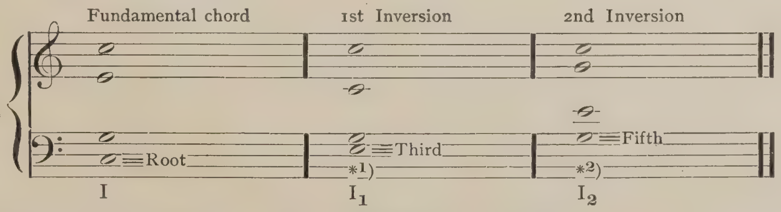
141. "Inverting" a chord means, simply, placing some other interval than the root in the lowermost part. Thus, the triads, which have three intervals, may appear in three different shapes, as regards the condition of the bass, namely:

a. As original triad or fundamental chord, with the root in bass;

b. As first inversion, with the third in bass; and

c. As second inversion, with the fifth in bass.

Ex. 101.



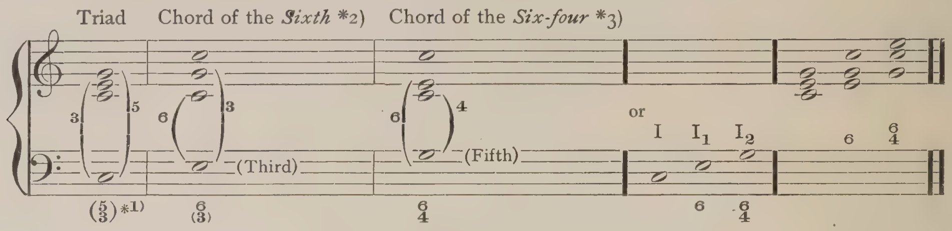
*1) Spoken: "Tonic triad, 1st Inversion"; or more conveniently "One-one."

*2) Spoken: "Tonic triad, 2nd Inversion"; or more conveniently "One-two."

Changing the chord-interval in bass does not alter the fundamental harmony, any more than the change of position in soprano does. Therefore the above forms are all named "the I."

142. In order to distinguish the bass notes as chord-third, or chord-fifth, from the bass note as root, figures are attached below them, which indicate the interval or intervals *from the bass note to the upper tones*, and define the *shape* and general denomination of the chord. Thus:

Ex. 102.



*1) The figures (intervals) 5 and 3 are always understood, unless contradicted by 6 and 4 respectively; therefore they are usually omitted. The figure (interval) 8 signifies duplication, and is usually understood, in triads.

*2) So called, because the column of intervals (from the lower tone upward) contains a *sixth*, — $\substack{6\\3}$ instead of $\substack{5\\3}$.

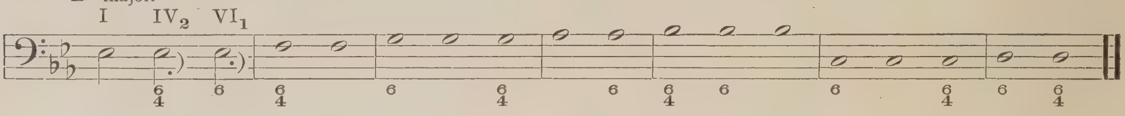
*3) In agreement with the bass-figuring, or *shape* of the column of intervals, $\substack{6\\4}$.

EXERCISE EIGHTEEN.

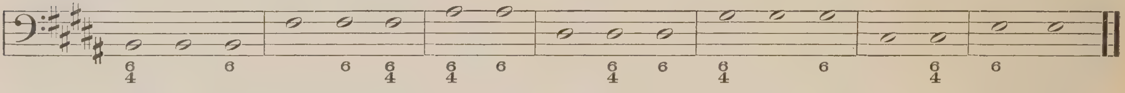
Attach the names (in Roman numerals) to the following chords, as indicated in the first measure.

When there are no figures, the bass note is a root. When marked 6, the bass note is a chord-third, the chord is a 1st inversion, and the root, and name, is found *a 3rd below*. When marked $\substack{6\\4}$, the chord is a 2nd inversion, and the root, and name, is found *a 5th below*. (See par. 51.)

E♭ major.



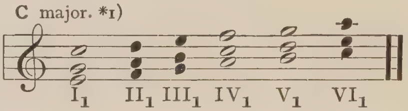
B major.



And write the following chords in *figured bass notes*, as above: D major I₂–III–IV₁– V₂–II₁–VI–I₁–VI₁–III₂–IV–II₂–V₁–VI₂–III₁–IV₂–II; and the same chords, in reversed order, in G♭ major.

SECTION 2. THE CHORDS OF THE SIXTH.

Ex. 103.



*1) These chords will be limited principally to the *major* mode, at present. Only those examples in which neither the II nor the III (or their inversions) occur, can be applied to minor also.

143. The first inversions appear most naturally as substitutes for their respective fundamental triads. The chord-third being a lighter interval than the root (par. 69*c*), it follows that the 1st inversions are lighter and more flexible than triads.

THE PRINCIPAL CHORDS OF THE SIXTH.

144. The chords of the sixth are classified, like the triads, as *principal* and *subordinate.* The prin. chords of the 6th are, naturally, the first inversion of the three prin. triads.

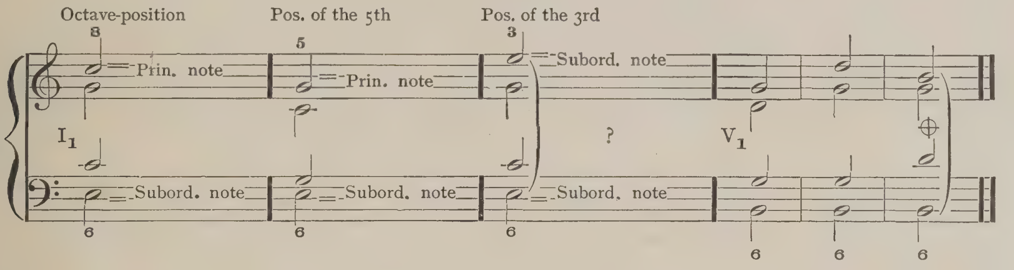
145. *a. The best position for every chord of the 6th is that of the octave* (*i.e., root in soprano,* — see 145*d*). Thus the quality of the bass tone as chord-third (instead of root, as the ear is apt to assume) is most clearly defined.

b. In the *principal* chords of the 6th, however, the root, *being a prin. tone of the scale,* can lie in an inner part without endangering the identity of the chord, in which case the soprano may take the *fifth.*

c. The position of the *third* should be avoided, as it doubles an inferior chord-interval in the *outer parts.*

d. The position of a chord is always reckoned from the root, no matter what interval the bass part chances to have. For example:

Ex. 104.



146. *a.* As a rule, *it is best to double the principal tones of the scale* (par. 59).

b. But in chords of the sixth *almost any tone* (excepting the leading-tone) may be doubled in order to obtain smooth voice-progression. Therefore, the prin. tones may be doubled, *whether root or fifth.* It is least desirable to double the bass note (*i.e.,* the third) in *principal* chords of the 6th.

c. No *chord-interval is ever omitted,* in any inversion.

147. *a.* The inverting of a triad is attended by the following advantages: It facilitates the connections of the chords to such a degree that *almost any of the foregoing forbidden progressions become possible, when the second chord, or both chords, are inverted.* Thus, V–IV is doubtful, but V–IV$_1$ is good, and V$_1$–IV$_1$ still better; VI–I?, VI–I$_1$ good; and so on.

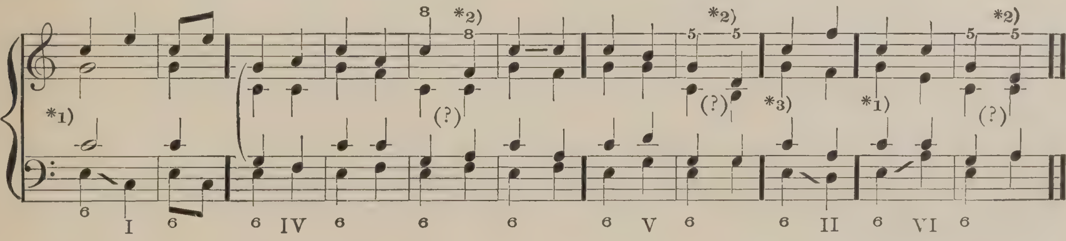
b. As seen above, it simplifies the rules of duplication.

c. It simplifies the rules of melodic progression so that successive positions of the 5th or 8th are allowed when one (especially the second) chord, or both chords, are inversions; and wide skips to the 5th in soprano are less objectionable than in triads.

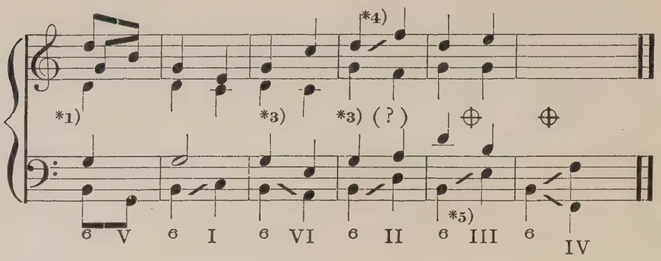
d. It conduces to the melodic smoothness of the bass part, which has precisely the same melodic choice of root, third (or fifth), as the soprano has. Compare the basses in the following exercises with those of the preceding ones.

148. The following tables exhibit the *progressions* of the three prin. chords of the 6th into *triads,* in the order of preference. Review par. 75.

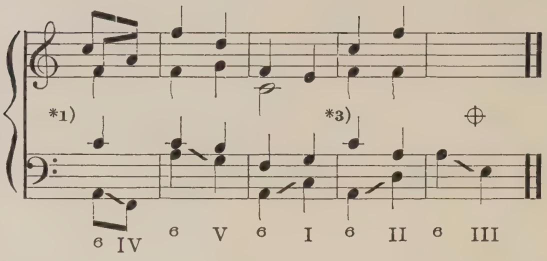
Ex. 105.



Ex. 106. V$_1$


*4)
*1)
*3)
*3) (?)
⊕
⊕
*5)
6 V
6 I
6 VI
6 II
6 III
6 IV

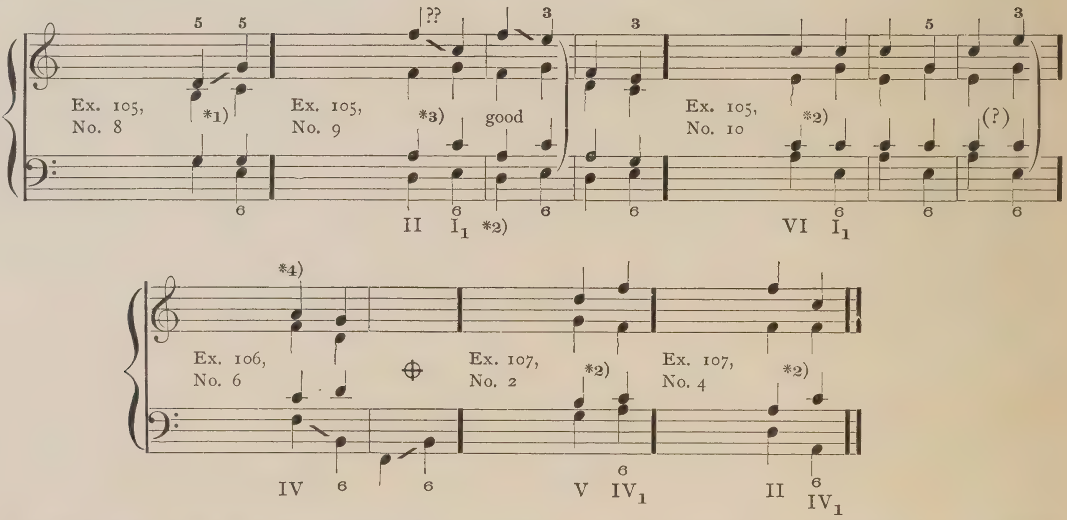
Ex. 107. IV$_1$


*1)
*3)
⊕
6 IV
6 V
6 I
6 II
6 III

*1) Exactly the same in C major *and C minor.* — *2) Par. 147*c.* — *3) Major only. — *4) See Ex. 79, and compare par. 147*a.* — *5) Par. 67*a.* — All the measures covered by Note *1) must be played *in C minor* also.

149. The introduction of these chords (choice of *preceding* chord) is effected according to the same general principles, and can be found by simply *reversing each measure* of the above examples, — playing the second chord before the first. Particular attention is, however, called to the following exceptional cases:

Ex. 108.


5 5
Ex. 105, No. 8
*1)
6
??
3
Ex. 105, No. 9
*3)
good
II
6 I$_1$
*2)
6
3
6
Ex. 105, No. 10
*2)
5
3
(?)
VI
6 I$_1$
6
6
*4)
Ex. 106, No. 6
⊕
IV
6
6
Ex. 107, No. 2
*2)
V
6 IV$_1$
Ex. 107, No. 4
*2)
II
6 IV$_1$

*1) Perfectly good, because the *second* chord is inverted (par. 147*c*). — *2) These four cases show how an irregular chord-succession is rectified by inverting the second of the two chords (par. 147*a*). — *3) Like Ex. 85, Note *1). This illustrates how and when the *position of the 3rd* of the I$_1$ may be necessary. — *4) The bass may leap *down* to the leading-tone, but not up (par. 31).

150. All of the above examples show that *chords of the 6th prefer to progress and to enter smoothly,* — without wide leaps in the bass. Compare the first two or three measures of Exs. 105–107 with the later ones.

FUNDAMENTAL PRINCIPLES.

The best position for every chord of the 6th is that of the *octave.*

In principal 6ths, the position of the fifth is permitted.

Any chord-interval may be doubled, — excepting the leading-tone.

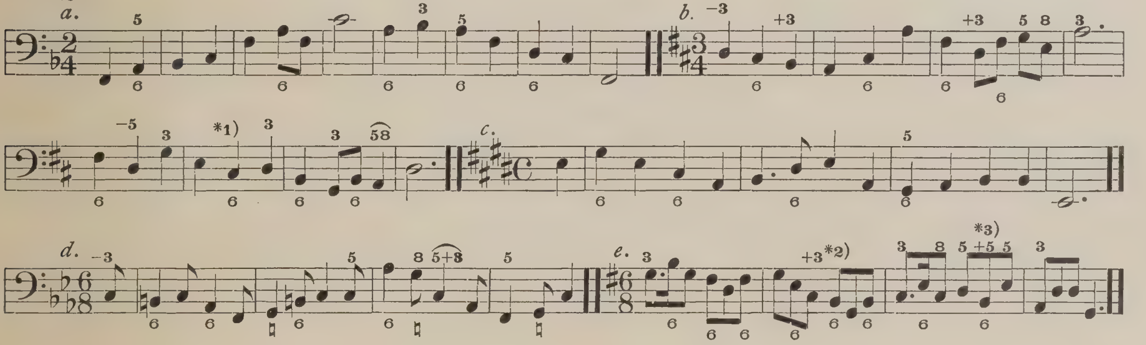
No interval is ever omitted in an inversion.

Every irregular chord-succession is excused by inverting the second one of the two chords, or both chords.

EXERCISE NINETEEN.

A. Add the soprano and inner parts to the following basses.

The student is reminded that the figures *below* the bass are always reckoned *upward from the bass note;* on the contrary, the figures *above* the bass refer to the position, and are always reckoned *from the root of the chord.* Comp. par. 142, and 145*d*.



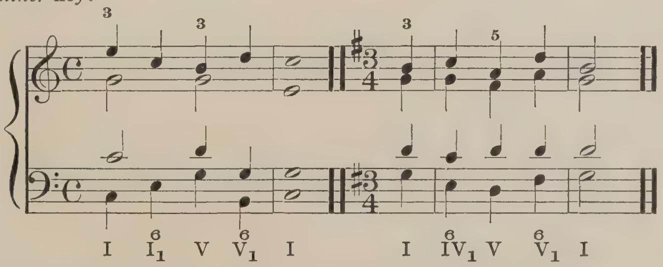
f.

F minor. $\frac{2}{4}$ +3 I V_1 I | 3 V VI I_1 | IV I IV_1 IV | V | −5 VI IV I_1 | IV I I_1 | V I IV_1 V | *5) I ||

*4)

*1) Par. 145*a*. — *2) Par. 67*b*; 145*b*. — *3) Par. 147c. — *4) Brackets indicate divided beats. — *5) Time-value?

B. Transpose (at the piano, at sight) the following two fragments (separately) into every other major key, and also into each corresponding *minor* key:



Observe the *positions* and *chord-progressions,* and the transposition will be easy.

C. Add a number of **Original phrases.**

The Subordinate chords of the sixth.

151. The only good subordinate 6th is the first inversion of the II. The VI_1 and III_1 are extremely rare.

152. Subordinate 6ths are limited almost wholly to the *octave-position*; because their roots, being subordinate tones, need to be in one of the outer parts, in order to be recognizable as roots. Par. 145*a*.

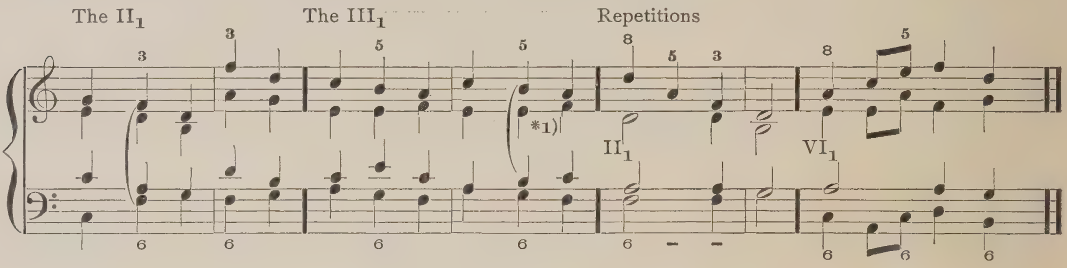
The exceptions to this rule are:

a. The II_1 — which sometimes takes the position of the *third* (because it is a principal tone and endures duplication, even in outer parts).

b. The III_1 — which, *when followed by the IV*, may (like the III itself) take the position of the *fifth*.

c. During chord-repetition, any position can be taken, of course.

Ex. 109.

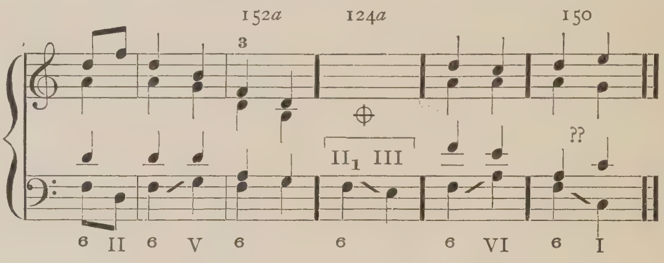


The II1
3
3
The III1
5
5
Repetitions
8
5
3
8
5
*1)
II1
VI1
6
6
6
6
6 – –
6
6
6

*1) This is an exceedingly rare example of the doubled leading-tone. It is excused mainly by the fact that it is the III, and not the V, — see par. 125; partly, also, by the smoothness of the voice-progressions in soprano and tenor.

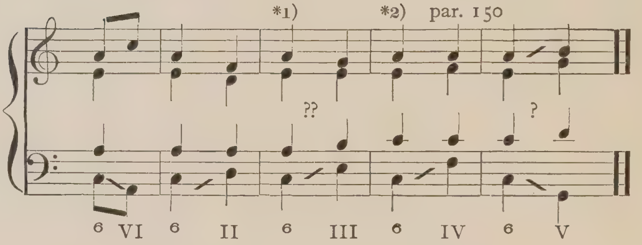
153. The *progressions* of the three sub. chords of the 6th, to triads, are as follows (in *major* only):

Ex. 110. II_1



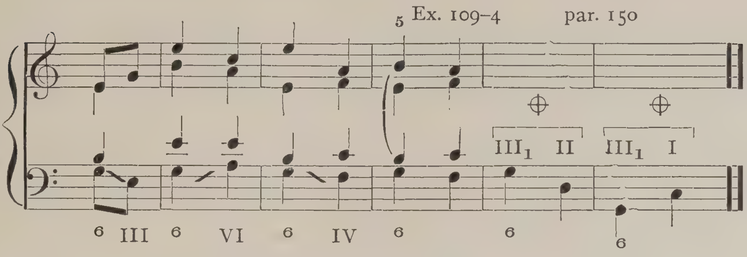
152a
124a
150
3
II1 III
??
6 II
6 V
6
6
6 VI
6 I

Ex. 111. VI_1 Rare.



*1)
*2) par. 150
??
?
6 VI
6 II
6 III
6 IV
6 V

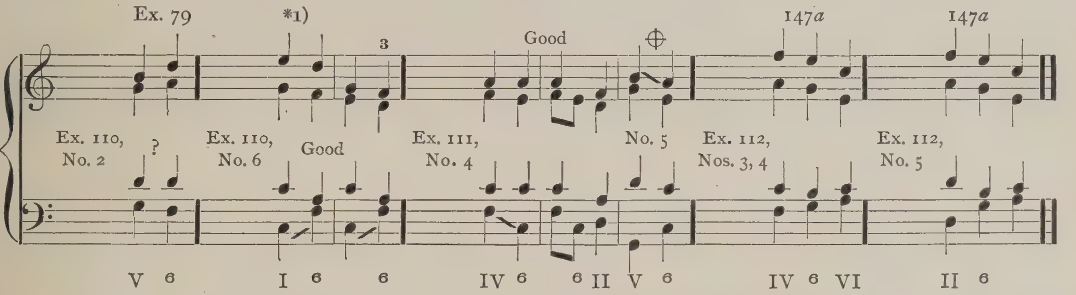
Ex. 112. III. Rare.


5 Ex. 109–4
par. 150
III$_1$ II
III$_1$ I
6 III 6 VI 6 IV 6 6 6

*1) A succession of two weak chords. — *2) Also in minor (par. 128).

154. The *introductions* will be found, as before (par. 149), by playing each of the above measures in reversed order. The following exceptional cases require special attention:

Ex. 113.


Ex. 79
*1)
3
Good
147*a*
147*a*
Ex. 110, No. 2
?
Ex. 110, No. 6
Good
Ex. 111, No. 4
No. 5
Ex. 112, Nos. 3, 4
Ex. 112, No. 5
V 6 I 6 6 IV 6 6 II V 6 IV 6 VI II 6

*1) Good, because the bass leap is made from the I (comp. par. 71). A strong chord can move with greater freedom than a weak one.

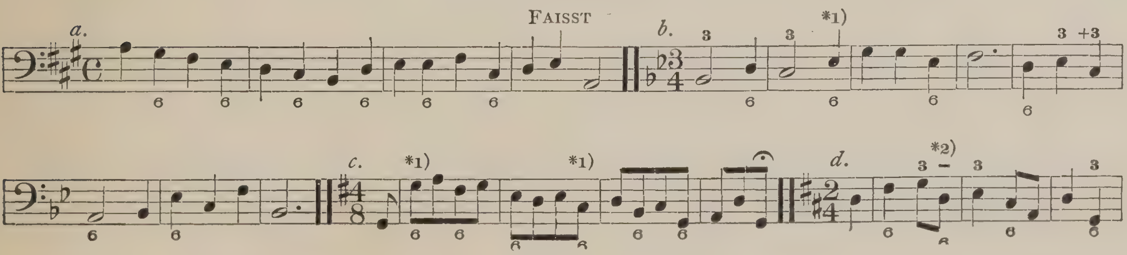
155. These examples again show that the movements of the chords of the 6th are dictated largely by *proximity of bass tones.* Comp. par. 150. The subordinate 6ths, especially, abhor wide leaps in bass. In this respect the inversions differ somewhat from the triads, whose harmonic actions are determined chiefly by *chord-relations.*

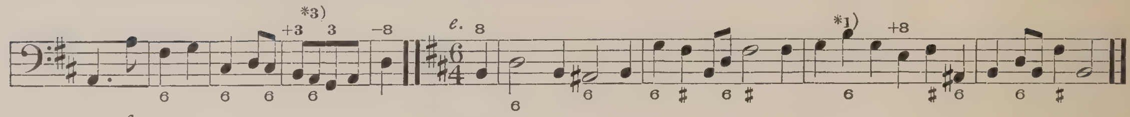
The thorough student must become fully familiar with all of these chord-movements. The above logical inferences will probably be of assistance, although, if need be, he must simply memorize each individual succession.

FUNDAMENTAL PRINCIPLES.

The only good subordinate 6th is the II$_1$.
Subordinate chords of the 6th take the octave-position.
Chords of the 6th, especially when subordinate, should make no wide leaps in bass.

EXERCISE TWENTY.


a.
FAISST
b.
*1)
c.
*1)
*1)
d.
*2)
3
+3
6



f. Eb major. $\frac{6}{8}$ $\overset{-3}{\mathrm{I}}$ I_1 I V_1 V V_1 | $\overset{3}{\mathrm{II}}$ II_1 II $\overset{*4)}{\mathrm{VI}_1}$ $\overset{+3}{\mathrm{VI}}$ VI_1 | $\overset{-3}{\mathrm{II}}$ V_1 I IV_1 V $\overset{*1)}{\mathrm{III}_1}$ | $\overset{-3}{\mathrm{VI}}$ II_1 V I || *5)

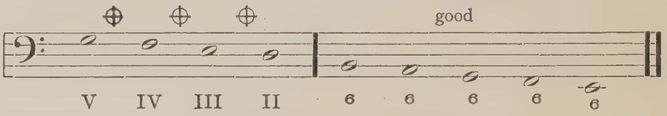
*1) Par. 152. — *2) This line denotes that the soprano note is to be held. — *3) Par. 152*b*. — *4) Par. 67*b*. — *5) Also other major keys.

To this exercise, add a number of **Original phrases.**

CONSECUTIVE CHORDS OF THE SIXTH.

156. The progression of one chord of the 6th into another (instead of into a triad, as in the foregoing lesson), is one of the most graceful, effective, and common chord-connections, and can be effected with great ease, especially *when the bass moves smoothly* (par. 155).

Here the advantage of inversion is again exhibited; for when, as in successive sixths, both chords are inversions, the chords are connected without regard to their relations (see par. 147*a*). For instance, the triad-progressions V–IV–III–II are wrong; but as chords of the 6th (V_1–IV_1–III_1–II_1) the succession is perfectly good. Thus:



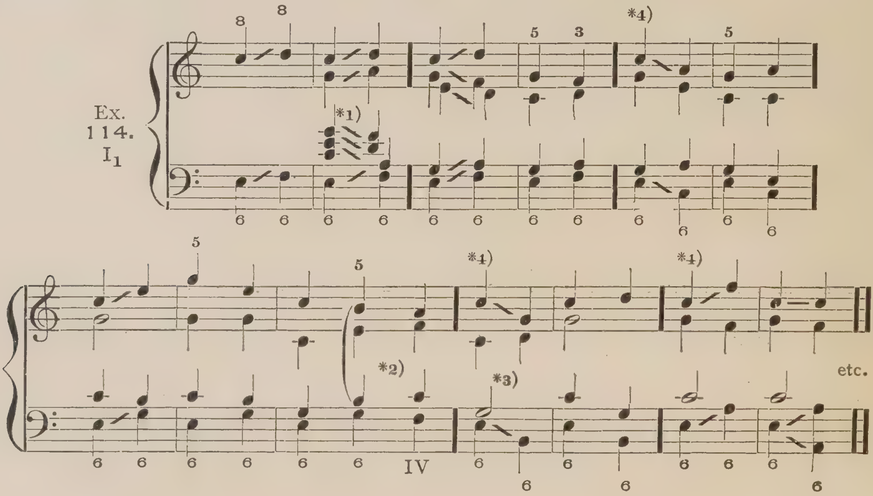
157. *a.* The soprano generally moves *in sixths parallel with the bass*, each chord taking the octave-position. Occasional exceptions (par. 145*b*, 152*a*) are admissible.

b. The rule of smooth voice-progression must be strictly observed, and attention must be paid, especially, to par. 66.

c. At least *one* part should move *in contrary direction to the others*, irrespective of duplications (146*b*).

158. The following table illustrates the connections of the I_1 with other chords of the 6th, in the order of preference; each measure can be reversed (as shown in par. 149).

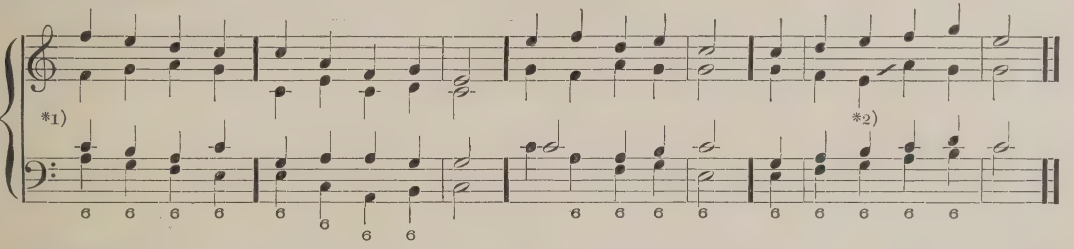
Ex. 114. I_1



*1) Either one of these three tenor progressions can be taken; and the same with the two alto progressions in the following measure. — *2) Comp. Ex. 109–4. — *3) These wide bass leaps are good only with *principal* 6ths. — *4) Also in minor.

159. The other successions of 6ths are made in the same manner, — *best when diatonic*, or with narrow leaps. The series may extend to three or even more chords, in which case parallel octaves and fifths must be guarded against. See par. 157*c*.

Ex. 115. Major.



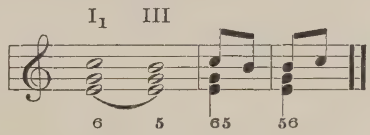
*1) The soprano runs in 6ths parallel with the bass. For three beats the alto moves contrary; then the inner parts turn, and the tenor runs opposite to the other three parts. — *2) All four parts ascend, as it cannot be avoided; but there are no parallel 8ves or 5ths.

Triad and Sixth on the same bass tone.

160. According to par. 155, it is apparent that a chord of the sixth will connect very readily indeed with that triad which has *the same bass tone*, — for example, the I_1 and the III (bass tone *e*, in C major, — Ex. 116).

161. Chords which are so nearly alike as these (with only one note of difference), are very often connected during *one beat*, instead of using a separate beat to each chord. Thus:

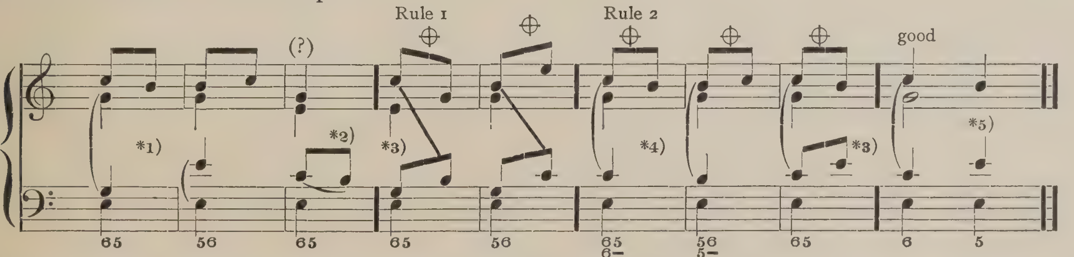
Ex. 116.



The chord of the 6th may *precede or follow* the triad. The figure 5 denotes the triad, and is not understood in this case, because of the 6 which accompanies it.

162. Rules: 1st, the notes of difference 6 and 5 (*c* and *b* in this instance) are connected in *one and the same part* — usually in the *soprano;* 2nd, when connected on a single beat, the first of these notes should not be doubled. For example:

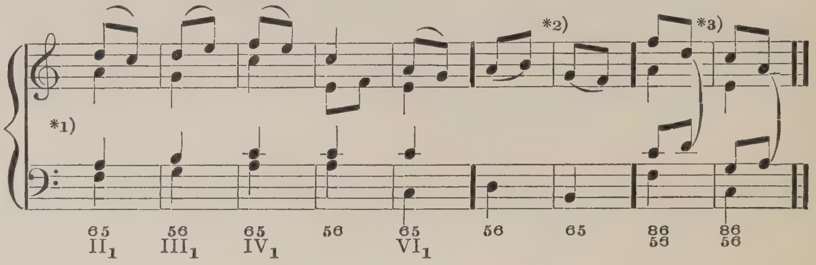
Ex. 117. I_1



*1) The lower three parts simply hold their tones. — *2) The notes of difference are less effective in an inner part than in soprano. — *3) Much too unquiet. — *4) If the first tone (*c*) is doubled and then *held*, it makes a dissonance with the second tone (*b*), to be avoided for the present. — *5) The second of the above rules applies only to the rapid connection, in a *single beat*; when each chord has its full beat, it is treated independently of the other.

163. The other chords of the 6th make this connection in the same manner:

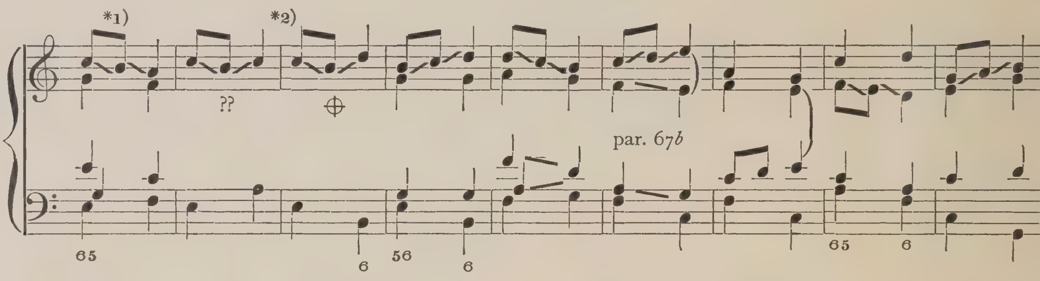
Ex. 118.



*1) As usual, separate measures. — *2) These two couplets are perfectly correct, but they will not appear in the following exercise, because they involve chords which have not yet been explained (par. 53). — *3) One or two exceptions of this kind (the second tone doubled) are justifiable. Observe the bass figuring; the horizontal rows (8–6, 5–6) indicate the course of the upper parts.

164. *a.* The rapid diatonic passing-notes (*i.e.*, the notes of difference), whether they lie in soprano or in an inner part, *must run on diatonically in the same direction*, if the following chord contains the required tone. Thus:

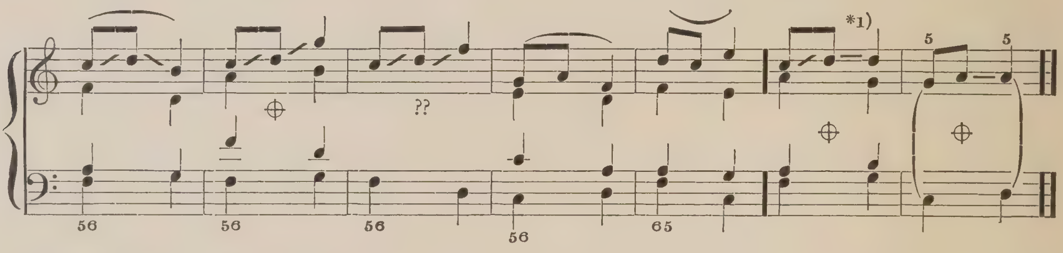
Ex. 119.



*1) Here the soprano is right, because it fulfills the impulse of the rapid diatonic notes, and conforms to par. 26. — *2) These two measures are awkward.

b. If, however, the succeeding chord should not contain the required tone, then the rapid part is more likely to *turn*, than to progress in the same direction with a skip, or remain on the same tone. Thus:

Ex. 120.



*1) Compare measure 1. This soprano makes parallel 5ths with the bass part, which are as objectionable as if the second eighth-note (*d*) were not between; because unaccented fractions of beats do not fully intercept consecutive 5ths. The same applies to intercepted octaves.

FUNDAMENTAL PRINCIPLES.

In successive chords of the sixth the soprano generally moves in 6ths parallel with the bass; and one inner part runs contrary to the other three parts.

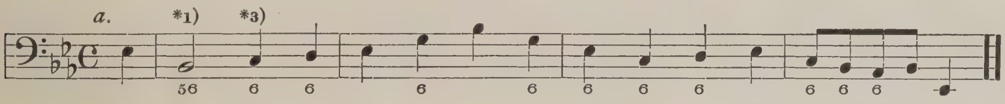
The couplet 6–5 or 5–6 should be placed unbroken in some part, — usually *soprano;* and the first tone should not be doubled.

Rapid diatonic tones generally run on in the same direction.

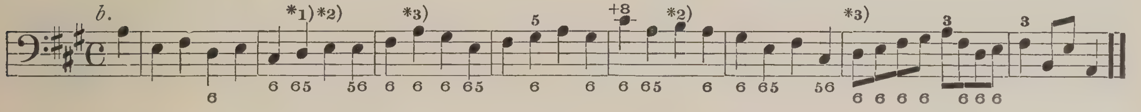
EXERCISE TWENTY-ONE.

It is well to complete the soprano before filling out the inner parts.

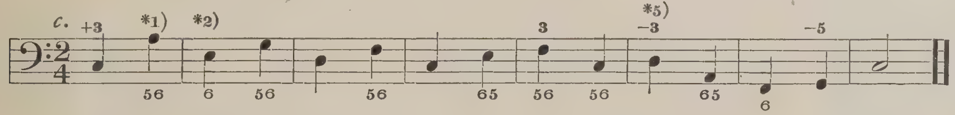
a.


*1)
*3)
56 6 6 6 6 6 6 6 6 6 6

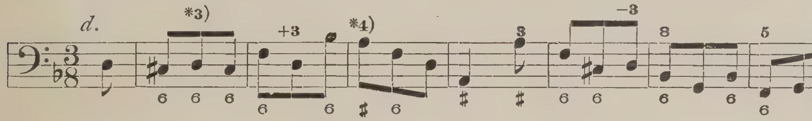
b.


*1) *2)
*3)
5
+8
*2)
*3)
3
3
6 6 65 56 6 6 6 65 6 6 6 65 6 6 65 56 6 6 6 6 6 6 6

c.

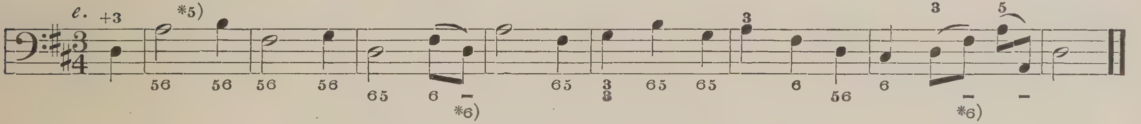

+3
*1)
*2)
3
*5)
−3
−5
56 6 56 56 65 56 56 65 6

d.

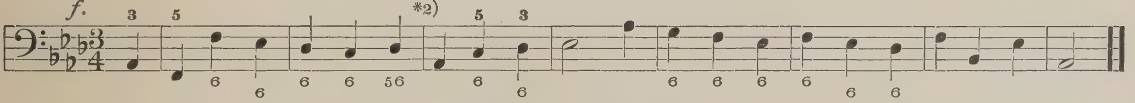

*3)
+3
*4)
3
−3
8
5
6 6 6 6 6 ♯ 6 ♯ ♯ 6 6 6 6 6 ♯

FAISST

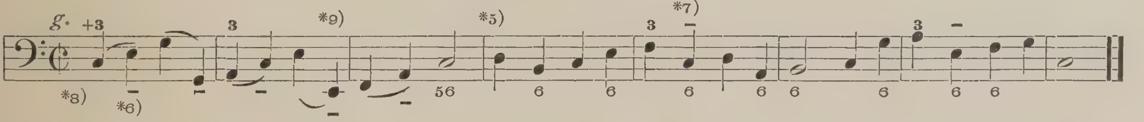
e.


+3
*5)
3
3
5
56 56 56 56 65 6 65 3 3 65 65 6 56 6
*6)
*6)

f.


3
5
*2)
5
3
6 6 6 6 56 6 6 6 6 6 6 6 6

g.


+3
3
*9)
*5)
3
*7)
3
*8)
*6)
56 6 6 6 6 6 6 6 6

h. F major. $\frac{2}{4}$ $\overset{3}{\mathrm{I}}$ $\underbrace{\mathrm{VI}\ \ \mathrm{IV}_1}$ | $\overset{*5)}{\mathrm{II}_1}$ $\underbrace{\mathrm{V}\ \ \mathrm{III}_1}$ | I_1 $\underbrace{\overset{8}{\mathrm{IV}}\ \ \mathrm{IV}_1}$ | I | II $\underbrace{\mathrm{V}_1\ \ \mathrm{V}}$ | $\underbrace{\mathrm{I}\ \ \mathrm{V}_1}$ $\underbrace{\overset{*3)}{\mathrm{IV}_1}\ \ \mathrm{III}_1}$ | II_1 V | I ‖

*1) Par. 162. — *2) 164*a.* — *3) 157*a,* and *c.* — *4) Par. 67*b.* — *5) 164*b.* — *6) The line below the bass note indicates that the soprano holds its tone, — perhaps one or both inner parts also. — *7) The line denotes that the soprano note is to be held. — *8) This bass illustrates diversity of rhythm, somewhat like Ex. 95, Note *1). — *9) 123*a,* and *c.*

To this exercise add a number of **Original phrases.**

MELODY-HARMONIZING. CHORDS OF THE SIXTH.

165. The use of chords of the sixth, in harmonizing a melody, is controlled by the following general principles:

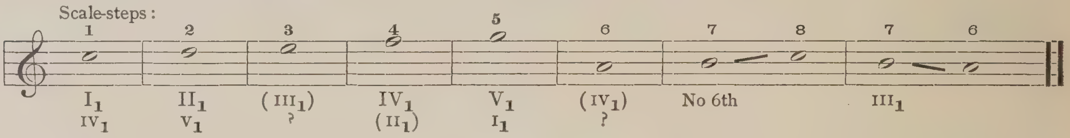
a. The choice of *chord* is made almost precisely as before, according to the table, Ex. 99, — which review, thoroughly.

b. The chord-third is used in bass most commonly *when the soprano (melody) has the root* of the chosen chord. (Comp. par. 72 and par. 145*a*, — "root in bass, third in soprano; root in soprano, third in bass.") This is almost invariable in *subordinate* chords.

c. The first inversion may, however, be used when the chord-fifth is in soprano; but only in principal chords.

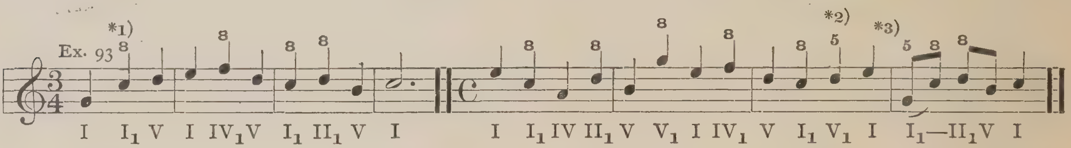
The following table, showing inversions only, may be *added* to Ex. 99:

Ex. 121.


Scale-steps:
1
2
3
4
5
6
7
8
7
6
I₁
IV₁
II₁
V₁
(III₁)
?
IV₁
(II₁)
V₁
I₁
(IV₁)
?
No 6th
III₁

For example:

Ex. 122.


Ex. 93
*1)
8
8
8
8
8
8
8
8
*2)
5
*3)
5
8
8
I I₁ V I IV₁ V I₁ II₁ V I
I I₁ IV II₁ V V₁ I IV₁ V I₁ V₁ I I₁—II₁ V I

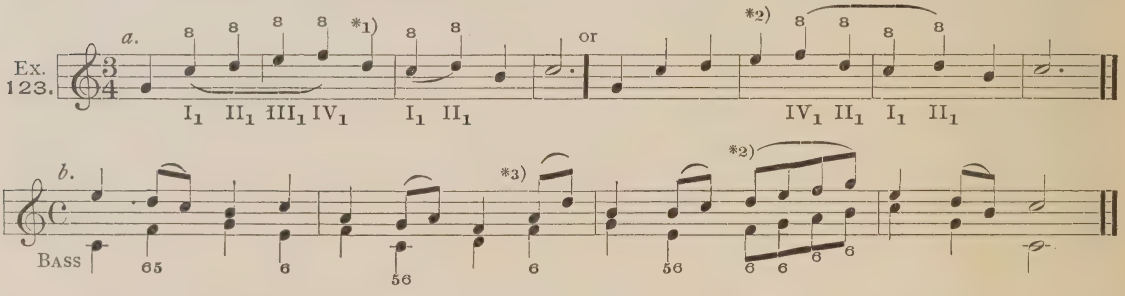
*1) "Root in soprano, third in bass." — *2) Here, and two beats later, the chord of the sixth is used with the chord-fifth in soprano, — being *principal* chords. — *3) The chord is repeated over the accent, but the *bass* changes, — par. 166.

166. There is little or no objection to the repetition of a *chord* over the bar or accent, *if the bass part moves* into a new form of the chord. This does not necessarily contradict par. 85, for there (and in par. 87) constant stress was laid upon the application of the rule to the repeated **bass tone** only. But this apparent exception now modifies par. 134*b*, and increases the student's freedom.

167. Besides the above fundamental directions, there is: *a.* The more exceptional line of *successive sixths* (par. 156) — which may be used (sparingly) when the melody-tones run smoothly, as successive *roots*; and

b. The couplet 6–5 or 5–6 above the same bass tone (par. 160), which is self-indicating. For example:

Ex. 123.


a.
8
8
8
8
*1)
8
8
or
*2)
8
8
8
8
I₁ II₁ III₁ IV₁ I₁ II₁
IV₁ II₁ I₁ II₁
b.
*3)
*2)
BASS
65
6
56
6
56
6
6
6
6

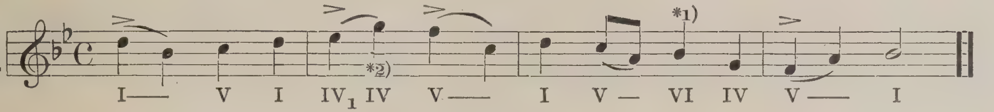
*1) This note is harmonized with a triad, to avoid too long a line of 6ths.

*2) Observe that the successive 6ths are applied where the melody runs smoothly, and that the line usually begins and ends with a fairly strong chord. — *3) Here the sixth scale-step is harmonized with the II₁, because it is evident from the slur and wide leap that the whole beat is one chord. See par. 168.

HARMONIZING SUCCESSIVE TONES TOGETHER.

168. If an *accented* melody-note and the following tone or tones represent the same chord, they may be slurred, as follows, and harmonized together:

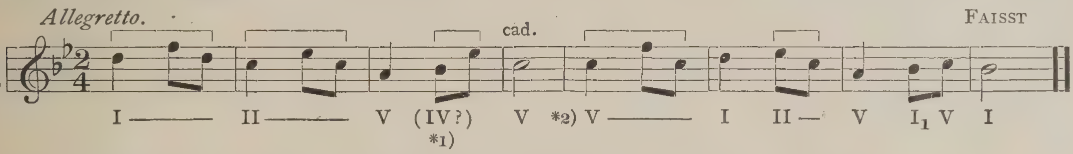
Ex. 124.



*1) The *b*♭ and *g* cannot be slurred in this case because they together represent the IV, which does not follow the V. — *2) Whether the chord is merely *held* (as in the 1st meas.) or repeated in a different form, is of no consequence; the principle is the same.

169. *a.* This principle applies particularly to *rapid* melody-notes which result from the division of a beat, as seen in Ex. 123, Note *3). Such rapid notes, *when they belong to the same beat* (or group of beats), are very often intervals of the same chord, especially when they *skip*, and not only may but *should* be harmonized together. Thus:

Ex. 125.



*1) Like Ex. 124, Note *1); it should be VI–IV₁. — *2) See par. 166, and 87*b*.

b. When the rapid notes (within a beat) are *diatonic*, they cannot belong to the same chord, and the treatment will conform to Ex. 123*b*, — second beat of measures 1 and 2, and measure 3.

FUNDAMENTAL PRINCIPLES.

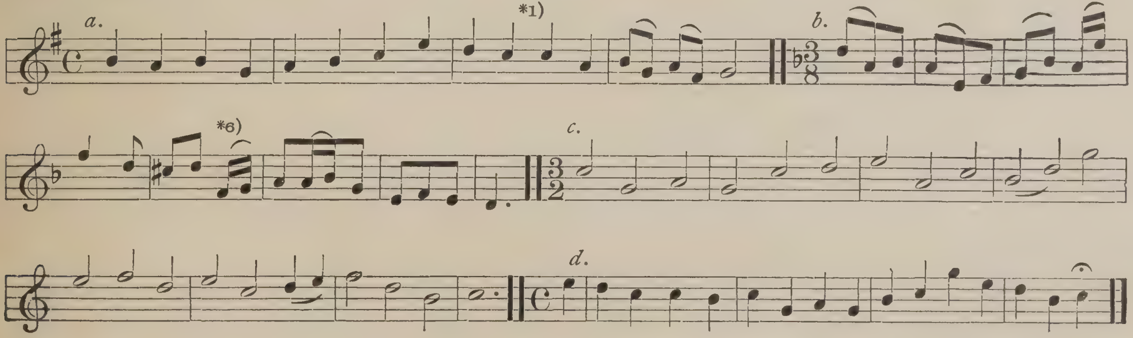
A chord of the sixth is most commonly used when the root is in soprano.

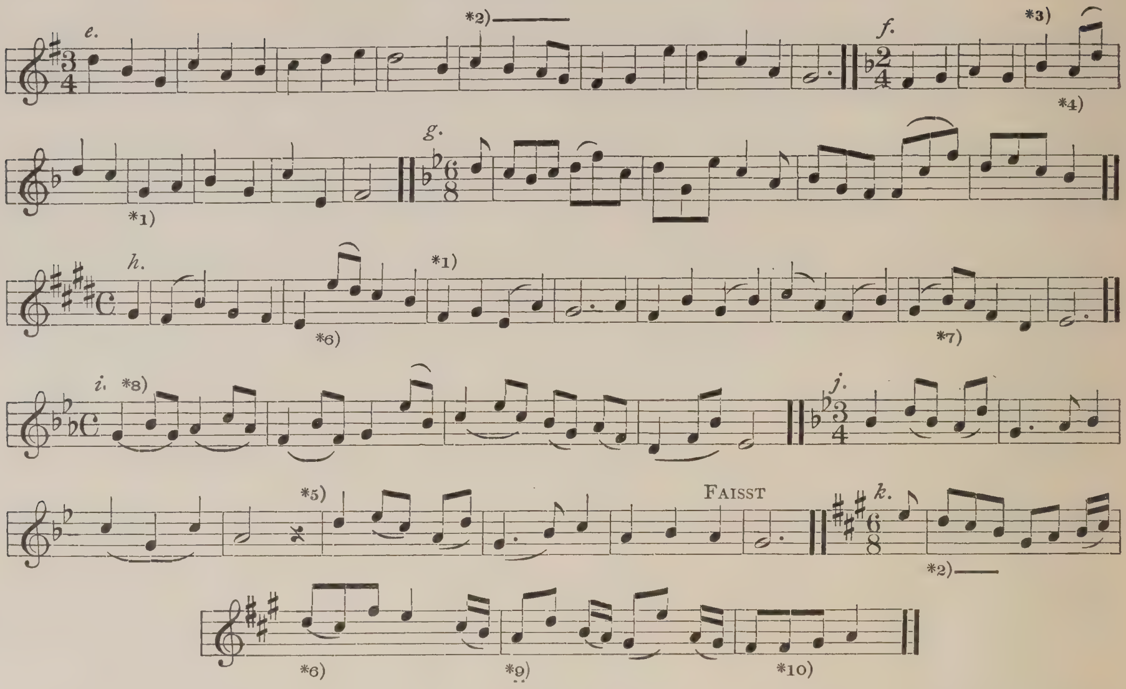
A chord may be repeated over the bar, or accent, if the *bass tone* is changed.

Rapid notes, in the same beat, are apt to be harmonized with the same chord, or same bass tone.

EXERCISE TWENTY-TWO.

Add bass and inner parts to Exs. 122, 123, 124 and 125; and to the following melodies, using triads and chords of the sixth. *See par.* 242.





*1) Par. 166. — *2) 167*a*. — *3) *Invert* the IV, after the V (par. 147*a*). — *4) Par. 169*a*. — *5) Probably V–I, with successive 5ths in soprano; they are rectified by inverting the second chord (par. 147*c*). — *6) Par. 167*b*. — *7) Note the slur. This is not treated as in par. 167*b*. — *8) 169*a*. — *9) Like Ex. 124, Note *1). — *10) Par. 137.

Section 3. The Six-four chords.

170. See Ex. 102. These inversions stand upon the *chord-fifth*, as shown in par. 141. The quality of this chord-interval, as defined in par. 69*c*, is most apparent, and exerts the greatest influence upon the harmony, when it lies in the *bass part*, — the chief function of which is to support the harmony. Consequently:

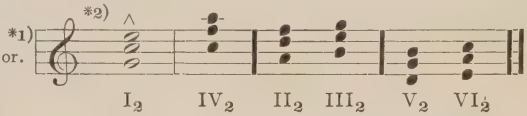
171. *a.* Six-four chords are not employed *independently*, but must be placed in certain connections with other and stronger chords, as **Embellishing** or as **Passing** chords.

b. They can not occur in direct succession, because of the successive *chord-fifths in bass*, which are far weaker than successive positions of the fifth (comp. par. 76*b*).

c. They can neither enter nor progress with a skip (in the bass part, of course).

d. For this reason, also, they are not classified, like triads and chords of the 6th, as "principal" and "subordinate" chords. The only distinction that can or need be made is as follows:

Ex. 126. C major.



*1) See Ex. 103, Note *1).

*2) The I_2, *when accented* (as is commonly the case), is semi-independent. The IV_2 is also a fairly strong chord. The rest are all dependent, and seldom occupy accented beats. The V_2 is weaker than might be expected.

172. *a.* The soprano-position of a six-four chord does not enter into consideration, being always regulated by the chord with which it chances to be connected. The soprano usually has either the interval 6 or 4 (third or root of the chord), — rarely the duplication of the bass tone.

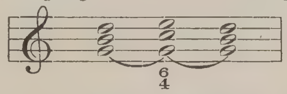
b. The *bass note is almost always doubled* (as intimated, usually in an inner part, — not often in soprano).

THE CONNECTIONS OF SIX-FOUR CHORDS.

FIRST CONNECTION.

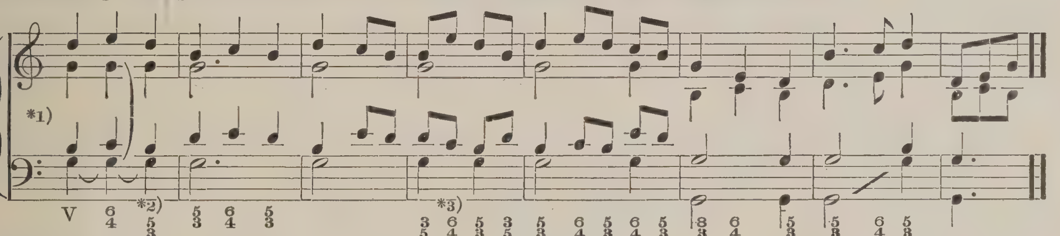
173. In general, the six-four chords appear in three different connections with other chords.

First: A 6–4 chord may *enter from*, or *progress to*, the triad upon the *same bass note.*



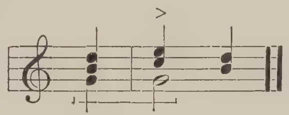
The following example illustrates the I_2 in this connection. See, again, par. 75.

Ex. 127. I_2



*1) Major and minor. — *2) The figures $\genfrac{}{}{0pt}{}{5}{3}$ denote the triad, and are necessary on account of the figures $\genfrac{}{}{0pt}{}{6}{4}$ which accompany them during the same bass tone. As seen in measures 1 and 2, the soprano usually takes either the melodic line 565 or 343 (but compare the last three measures), and the bass tone is doubled in one of the inner parts; wherever the 6th is, the 5th will follow it (as in Ex. 117), and, similarly, the 4th is followed by the 3rd. — *3) An unusual arrangement of the bass figures, as here, serves to indicate the course of the upper lines.

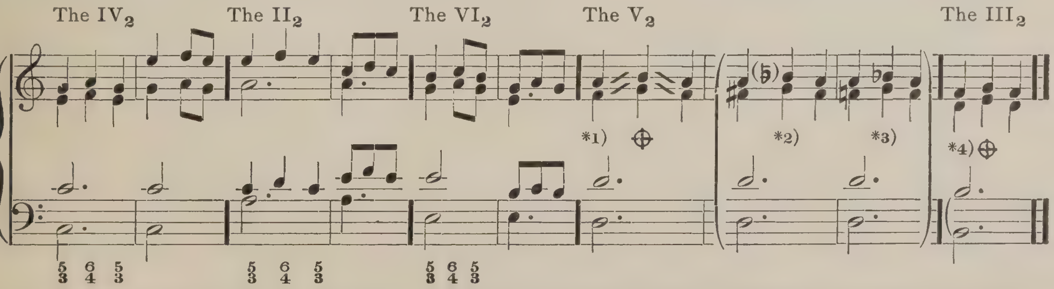
174. This connection of the six 6–4 chords is not allowed in the following rhythm·



on account of the repetition of the *bass tone* over the bar. (Comp. par. 166.)

175. Not all of the six 6–4 chords can appear in this connection. The following table shows that, besides the I_2, only the IV_2, II_2 and VI_2 can be connected with the triads of their respective bass notes. With the V_2 and III_2 it is impossible.

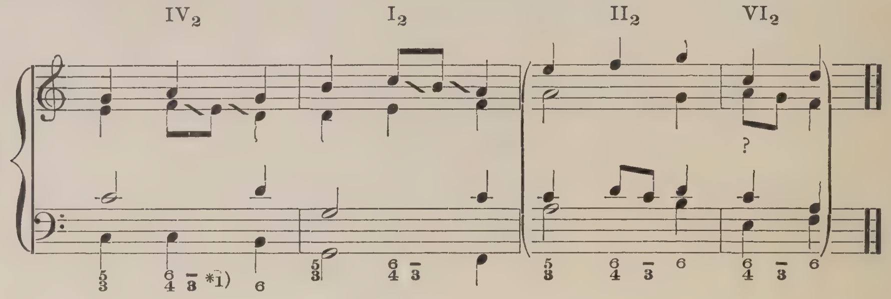
Ex. 128.



*1) The V_2 can not be used in this connection on account of the false melodic progressions involved (Ex. 16–6). — *2) With these accidentals the 6–4 chord is not a V_2, but the I_2 of G major or minor. — *3) Here it is a IV_2 in D minor. — *4) There is no legitimate triad upon the bass note of the III_2 (par. 53).

176. The connection of a 6–4 chord with the *chord of the 6th* upon the same bass note is possible, but rare. It is most common in rapid rhythm, as in Ex. 117.

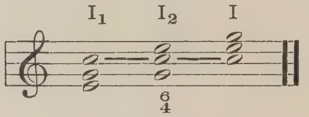
Ex. 129.



*1) The line denotes that the corresponding tone is to be held.

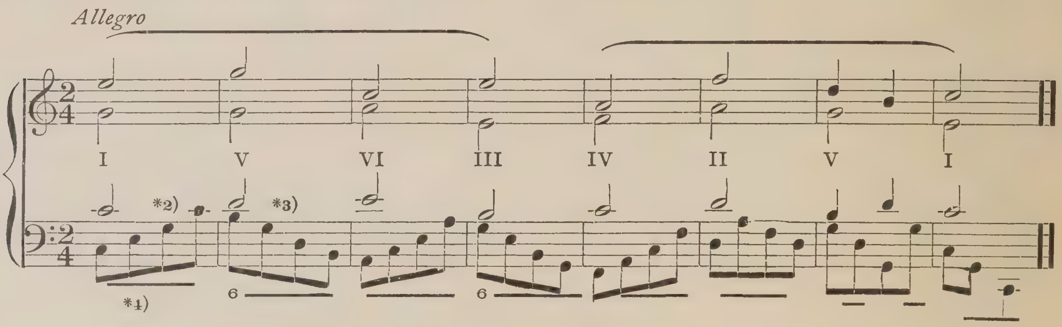
SECOND CONNECTION.

177. Second: A six-four chord may appear in connection with any chord of the **same root.**



This is merely *chord-repetition*, therefore all the rules are nullified, even par. 171*c*. All of the 6–4 chords can be used in this way. For example:

Ex. 130. *1)

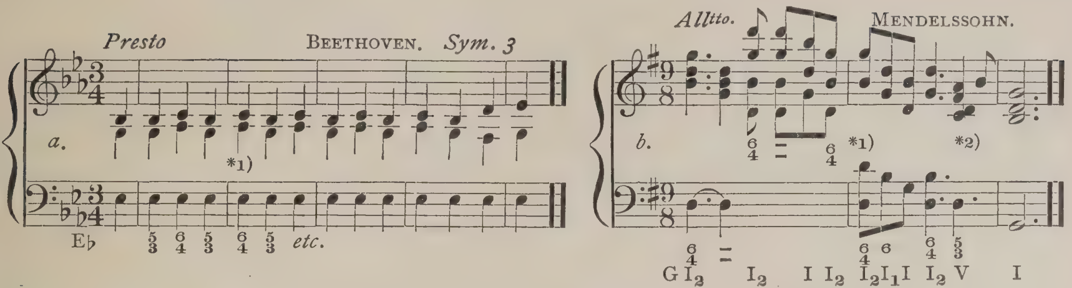


*1) This example is a *continuous* 8-measure phrase, and not separate measures. — *2) As the bass part moves from one chord-interval to another, it constitutes occasionally a 6–4 chord, as here. — *3) The momentary incompleteness of the chord is of no consequence in rapid rhythm. — *4) These lines, beneath a *moving* bass, indicate chord-repetition; the upper parts are held.

178. It need not be inferred from the above example that the 6–4 chords in this 2nd connection must necessarily be short. They frequently occupy *full* beats. See Ex. 131*b*; Ex. 135.

The following extracts illustrate Connection one (at *a*) and Connection two (at *b*):

Ex. 131.


Presto
BEETHOVEN. *Sym. 3*
a.
*1)
E♭
5 3 6 4 5 3 6 4 5 3 *etc.*
Allto.
MENDELSSOHN.
b.
6 4
*1)
*2)
G I_2
I_2
I I_2
I_2 I_1 I I_2 V
I

*1) These repetitions in bass (contrary to par. 174) will be explained in due time. — *2) With embellishments

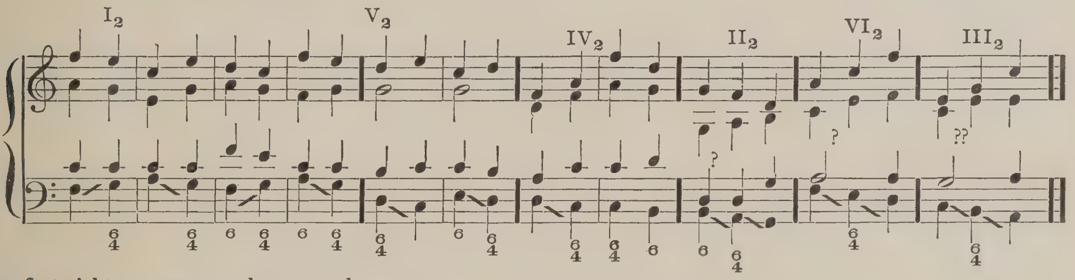
---

THIRD CONNECTION.

179. Third: A six-four chord may be connected with any good chord upon the **next higher or lower bass note.**

This "diatonic" connection is not equally applicable to all of the 6–4 chords. With the I_2 and V_2 it is excellent; but with the others more rare, and apt to undermine the key.

Ex. 132.

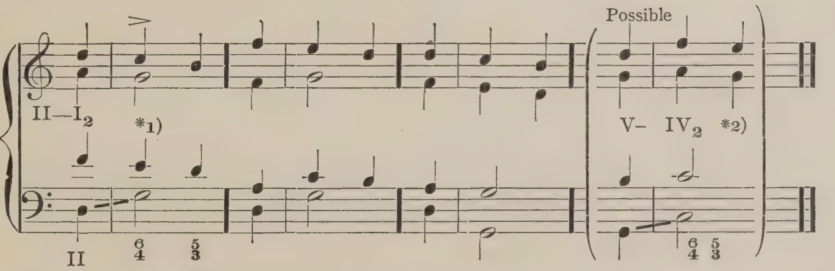

I_2
V_2
IV_2
II_2
VI_2
III_2
?
?
??
6 4
6 4
6
6 4
6
6 4
6 4
6
6 4
6 4
6 4
6
6
6 4
6 4
6 4

The first eight measures can be reversed.

180. *a.* In comparing these three connections, it appears that in the first case the bass part is stationary, in the second case the upper parts retain the same tones, and in the third case, where there is an actual harmonic movement in bass, it is limited to a single step.

181. One important exception to these rules is found in the combination II–I_2, which involves a skip in bass (par. 171*c*):

Ex. 133.


II—I_2
*1)
Possible
V– IV_2
*2)
II
6 4
5 3
6 4 5 3

*1) The 6–4 chord is usually accented. — The justification of this exceptional harmonic progression lies in the fact that the 6–4 chord is only an *interposed* chord between two closely related triads; thus: II (I_2) V. — *2) This progression is much more rare. It represents V (IV_2) I.

FUNDAMENTAL PRINCIPLES.

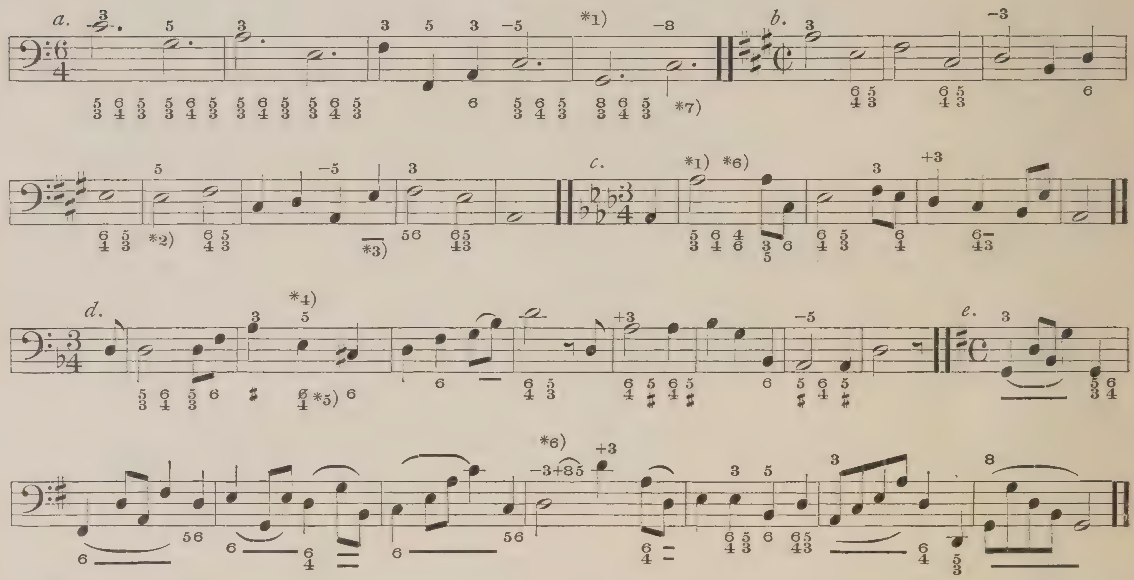
Six-four chords are weak.

They can occur, legitimately, only in connection with chords of the same bass tone, same root, or neighboring bass tone.

The soprano-position is optional. The *bass tone* is doubled.

It is unrhythmical to repeat a *bass tone* over the bar, or accent.

EXERCISE TWENTY-THREE.



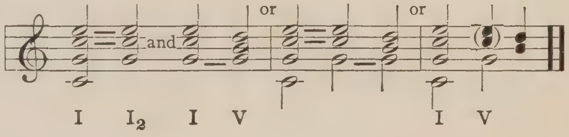
*1) Any unusual arrangement of the bass figures, as here, serves merely to indicate the course of the upper part or parts. Comp. Ex. 127, Note *3).— *2) Par. 87*b*. — *3) Hold the upper tones. — *4) The position of a chord is reckoned from the *root* (par. 145*d*). — *5) The line through the figure 6 signifies that the corresponding note is *raised* by an accidental; it refers, here, to the leading-tone *c*♯. Comp. Exercise 10. — *6) Rhythm ♩ ♫ —. *7) Analyze every bass, with reference to the manner in which each 6–4 chord enters and progresses.

---

182. It has been seen in the above examples that these three connections, when possible at all, can be applied equally well *before* or *after* the 6–4 chord. Hence it is obvious that the connections may be associated, so that the 6–4 chord enters in one manner and progresses in another. In this way certain characteristic groups arise, according to the preference which the separate chords evince for certain connections.

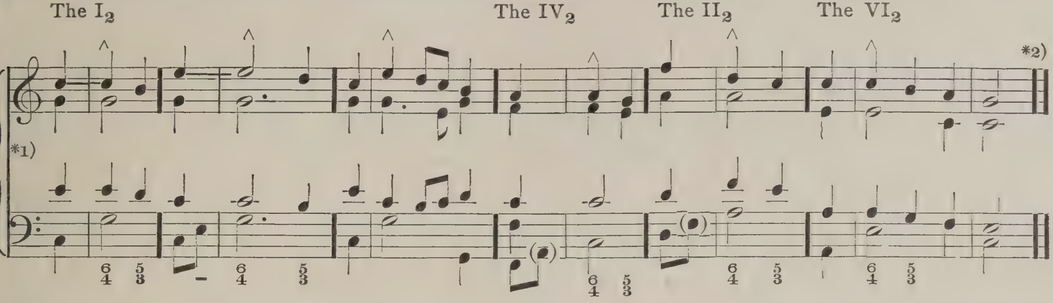
183. One of the commonest forms results from introducing the six-four chord as *repetition*, and leading it into the triad upon the *same bass tone*. Thus:

Ex. 134.



184. In this group the 6–4 chord almost always occupies the *accented beat* (or accented fraction); and it represents the same kind of intercepting chord as was seen in Ex. 133. For example:

Ex. 135.


The I_2
The IV_2
The II_2
The VI_2
*2)
*1)
6 4
5 3
6 4
5 3
6 4
5 3
6 4
5 3
6 4
5 3

*1) It is a little more usual to retain the same soprano note in the 6–4 chord (as in Nos. 1 and 2) than to exchange voices (as in No. 3). — *2) The V_2 and III_2 are not feasible (par. 175).

185. This rhythmic location of the repetition confirms par. 166.

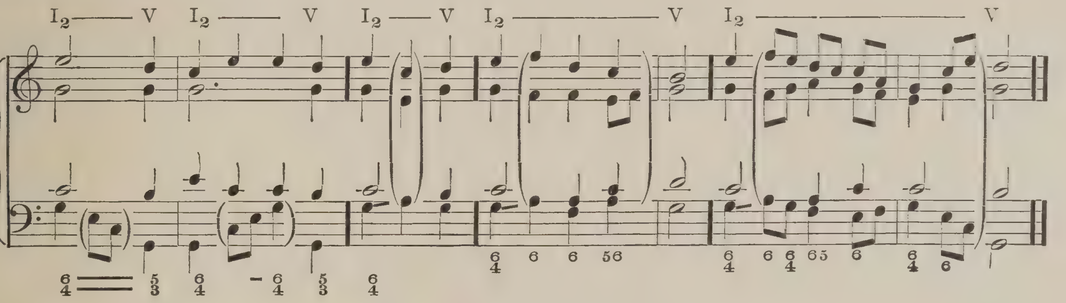
186. *a.* A 6–4 chord when occupying an *accented beat* evinces a decided preference for the progression into the triad upon the *same bass tone*, no matter in which connection it was introduced; probably because an *accented* bass tone impresses the mind as a harmonic index, and urges to become a root.

When a 6–4 chord is *unaccented*, it matters but little in what connection it enters and progresses.

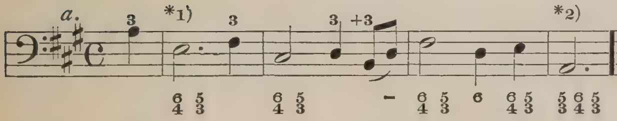
b. This progression is most common, and nearly obligatory, with the *tonic* 6–4 chord (I_2), which, *when accented*, almost always moves into the V.

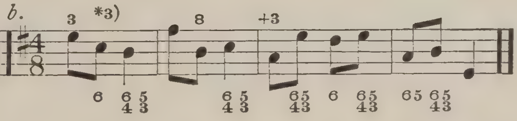
But it is not obliged to make the progression *at once;* sometimes a number of chords in the other connections (same root or neighboring bass tone) intervene. Thus:

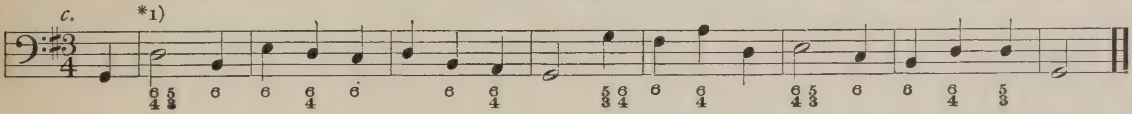
Ex. 136.

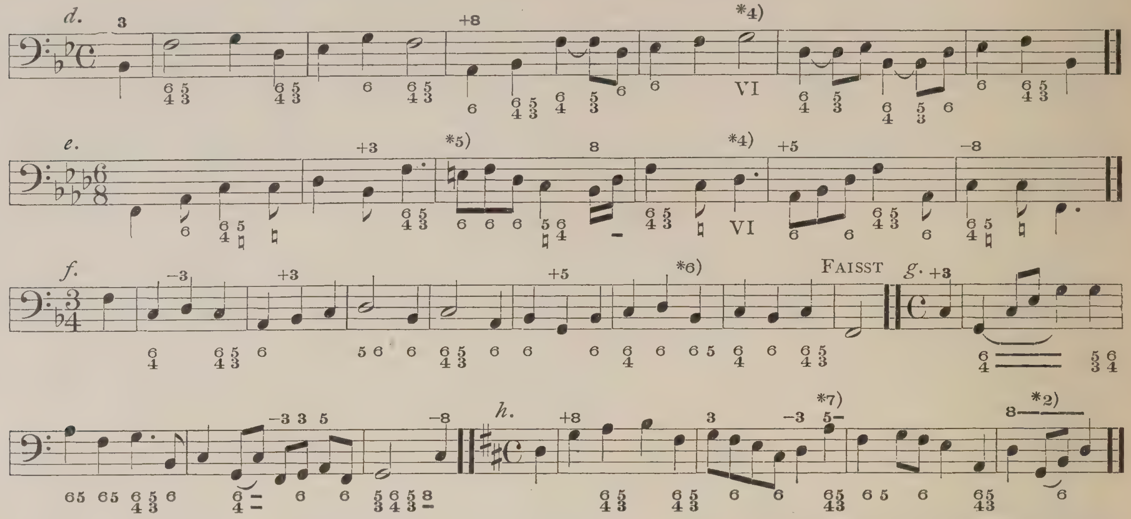

I_2 — V
I_2 — V
I_2 — V
I_2 — V
I_2 — V
6 4
5 3
6 4
6 4
5 3
6 4
6 4
6
6
5 6
6 4
6
6 4
6 5
6
6 4
6

EXERCISE TWENTY-FOUR.


a.
3
*1)
3
3
+3
*2)
6 4
5 3
6 4
5 3
6 4
5 3
6
6 4
5 3
5 3
6 4
5 3


b.
3
*3)
8
+3
6
6 4
5 3
6 4
5 3
6 5 4 3
6
6 5 4 3
6 5
6 5 4 3


c.
*1)
6 5 4 3
6
6
6 4
6
6
6 4
5 3
6 4
6
6 4
6 5 4 3
6
6
6 4
5 3



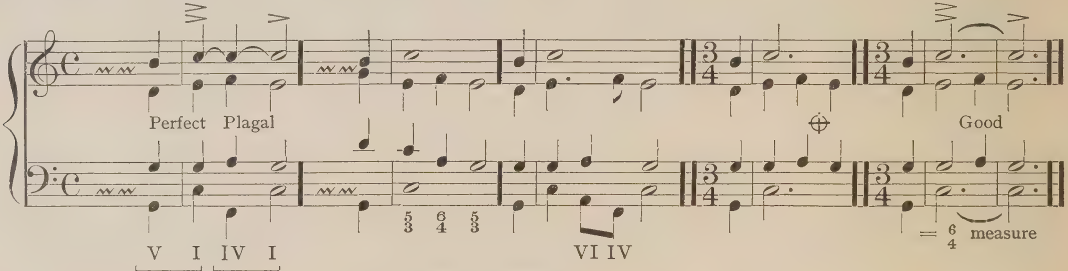
*1) Ex. 135, Note *1). — *2) The Plagal cadence. See par. 187. — *3) The rhythm in bass, in the first two measures, is irregular, the heavier note occupying the lighter beat (par. 5). It is justified *by its recurrence* in the second measure. See par. 261. — *4) This is the actual cadence-beat of the phrase; but instead of being the I, it is its *relative*, the VI. The expected perfect cadence is therefore evaded, or transformed into a so-called Deceptive cadence, and two measures had to be added to the phrase, in order to regain the perfect cadence. — *5) Par. 157. — *6) Par. 162. — *7) The soprano note is held. — Analyze every bass, as in the preceding exercise.

To this exercise add a number of **Original phrases.**

THE PLAGAL CADENCE.

187. The plagal cadence is a short succession of chords (generally not more than two) *added* to the perfect cadence, to make the latter less abrupt. To prevent the effect of the perf. cad. from being counteracted, it is necessary *to retain the tonic note in soprano* (or both soprano and bass) during the plagal ending. Therefore the latter must consist of such chords as contain the tonic, *i.e.*, the IV or VI. The most common of these is the IV. Like all cadences, it must close upon an accent, and for this reason it can appear only in compound measure (par. 3*b*), the perfect cadence falling on the primary accent, and the plagal cadence upon the secondary one (par. 3*d*).

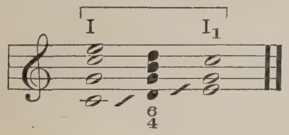
Ex. 137.



SIX-FOUR CHORDS AS PASSING CHORDS.

188. See par. 171*a*. When an *unaccented* 6–4 chord enters diatonically, it is apt to *progress diatonically also, in the same direction.* It then becomes a **passing chord,** in one of the following three relations:

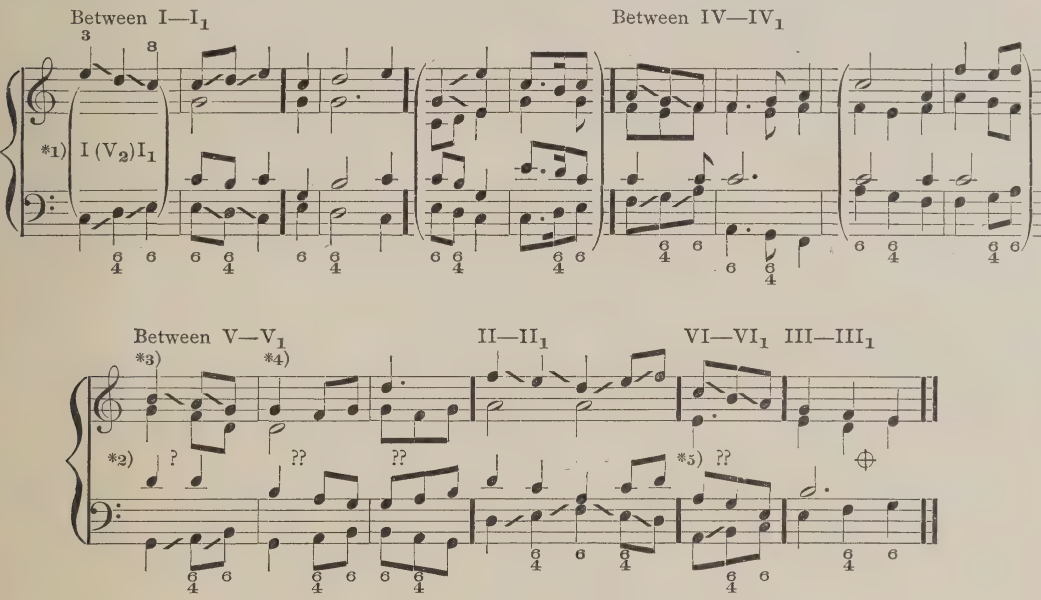
189. *a.* **First:** The 6–4 chord appears as diatonic passing chord *between a triad and its first inversion.* Thus:



Not between a triad and *any* chord of the 6th, but a triad and *its own* sixth. This progression is very common, and may be made in either direction (triad first, or sixth first), in any rhythm, and at any part of the measure, though the 6–4 chord is *generally* unaccented.

b. The soprano usually takes the *same notes as the bass, but in contrary order* (Ex. 138–1, 2, 3).

Ex. 138.

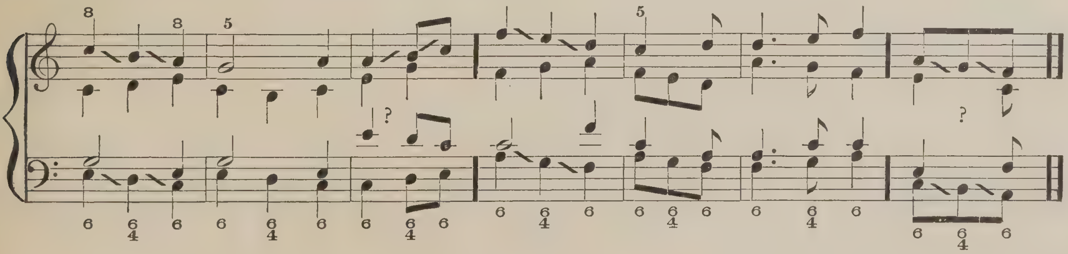


*1) The first 9 measures are the same in major and minor. — *2) From here on, only in major. — *3) Ex. 16–1. — *4) Ex. 16–8. — *5) All weak chords.

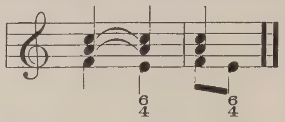
190. *a.* **Second:** The 6–4 chord becomes a passing chord *between two different chords of the sixth.* This progression is very good, and is possible in either direction; but it is comparatively rare, because there are so few places in the scale where it is practicable.

b. The soprano generally runs in 6ths parallel with the bass.

Ex. 139.

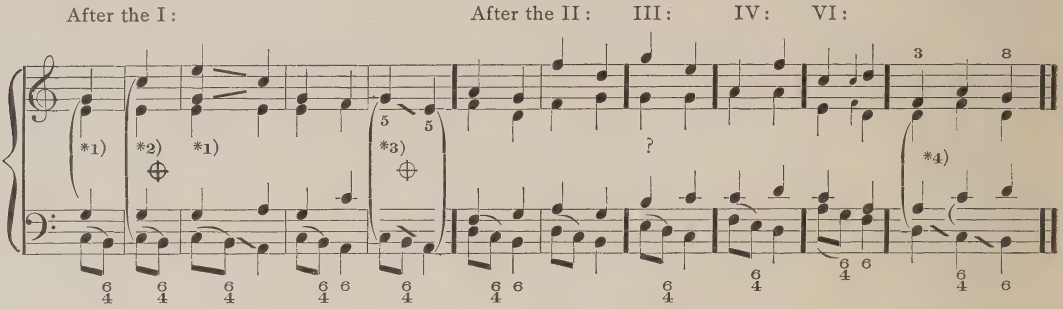


191. *a.* **Third:** The 6–4 chord appears as *diatonically descending passing note in bass*, following a *triad*, and progressing in the same direction into another triad, or into a chord of the sixth. Thus:



b. This harmonic group is analogous to Ex. 117. The chords are so nearly alike that the combination is usually made on a *single beat*, and the bass tones, which are here the notes of difference, should not be doubled. Compare par. 162.

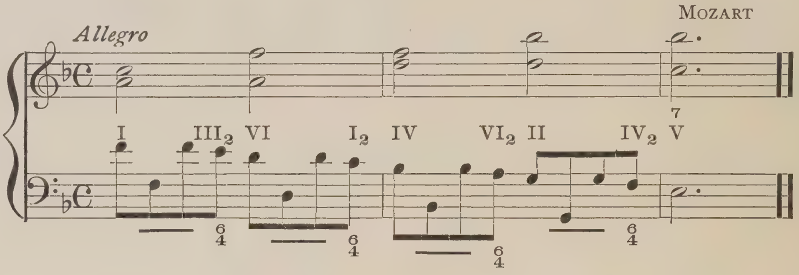
Ex. 140.


After the I:
After the II:
III:
IV:
VI:
*1)
*2)
*1)
*3)
?
*4)
5
5
3
8
6 4
6 4
6 4
6 4 6
6 4
6 4 6
6 4
6 4
6 4 6
6 4 6

*1) Either the 3rd or 5th of the triad is doubled. — *2) Ex. 117, Note *4). — *3) Compare Ex. 120, Note *1). — *4) Compare Ex. 117, Note *5).

Another illustration of this connection:

Ex. 141.


Allegro
MOZART
I
III₂
VI
I₂
IV
VI₂
II
IV₂
7
V
6 4
6 4
6 4
6 4

FUNDAMENTAL PRINCIPLES.

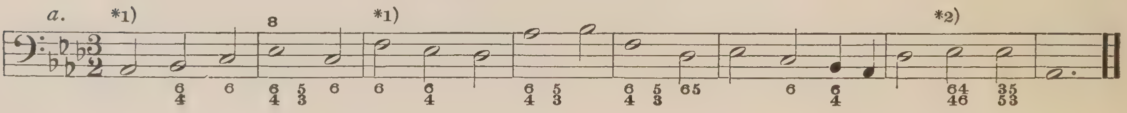
An *accented* 6–4 chord usually passes into the triad of the same bass tone.

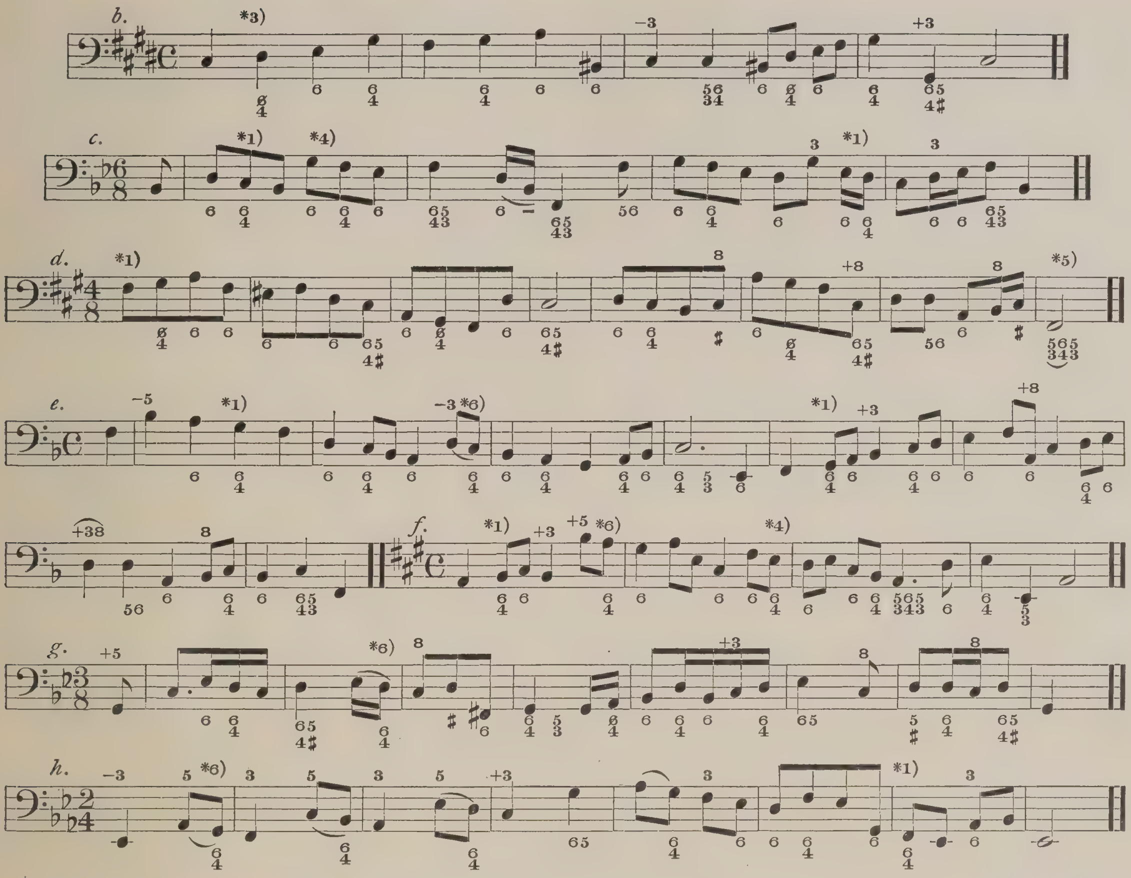
An *unaccented* 6–4 chord usually progresses diatonically.

The plagal cadence is *added* to the perfect cadence, while the keynote is held in soprano, or in both outer parts.

The deceptive cadence is *substituted* for the perfect cadence, by using the VI instead of the I.

EXERCISE TWENTY-FIVE.


a.
*1)
8
*1)
*2)
6 4
6
6 4
5 3
6
6
6 4
6 4
5 3
6 4
5 3
65
6
6 4
64 46
35 53

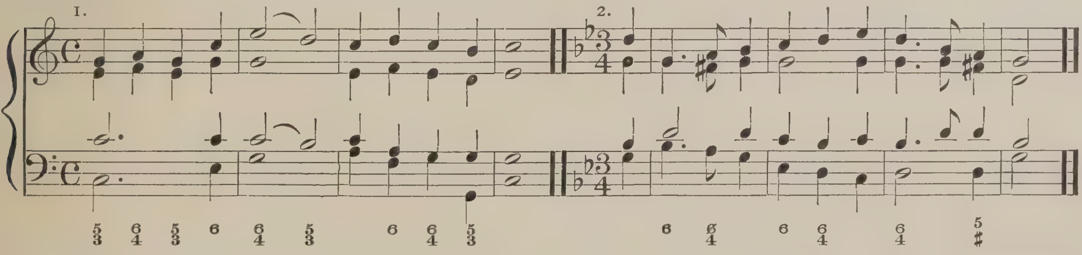


*1) Par. 189*a*, *b*. — *2) Exercise 23, Note *1). — *3) Exercise 23, Note *5). — *4) Par. 190*a*, *b*. — *5) Plagal cadence; rhythm ♫ ♩—. *6) Par. 191*a*, *b*. — Analyze every bass, as in the foregoing exercise.

To this exercise, add a number of **Original phrases.**

EXERCISE TWENTY-SIX.

Transpose (at the piano, at sight) the first of the following examples into all other major keys; and the second, in the same manner, into all other minor *and major* keys.



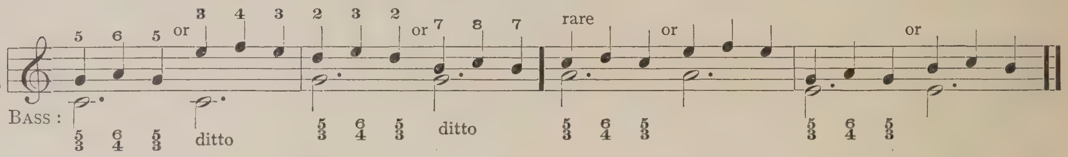
Closely observe the positions and the bass figures.

MELODY–HARMONIZING. SIX-FOUR CHORDS.

192. The fundamental chords are defined, as usual, by the scale-steps, according to Ex. 99. But for the 6–4 chords it is more convenient to single out the *melodic groups* which best admit of this form of chord. These are:

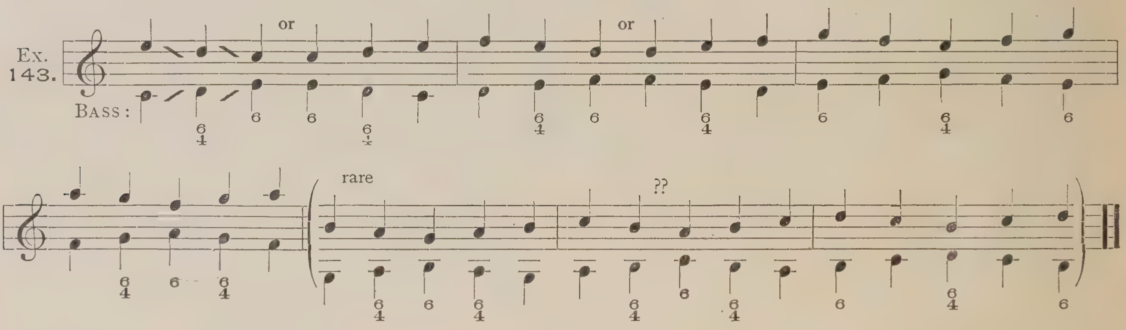
a. The figure with scale-steps 5, 6, 5, — also 3, 4, 3, — 2, 3, 2, — 7, 8, 7, — 1, 2, 1. See Exs. 127, 128.

Ex. 142.


5 6 5
or
3 4 3
2 3 2
or
7 8 7
rare
or
or
BASS:
5 3 6 4 5 3
ditto
5 3 6 4 5 3
ditto
5 3 6 4 5 3
5 3 6 4 5 3

b. Every line of three *diatonic* steps may be harmonized with the *same three steps in bass, in contrary direction;* and a 6–4 chord is always involved. See Ex. 138–1, 2.

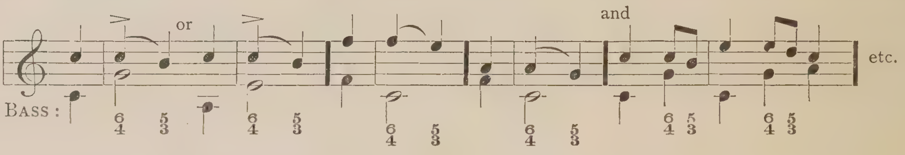
Ex. 143.


or
or
BASS:
rare
??

Discrimination is necessary here. The 6–4 chord is usually in the centre of the group, but not *always*. Review par. 171*b*.

c. A melody-note, *repeated over the bar or accent*, is very likely to become a 6–4 chord. See Ex. 135.

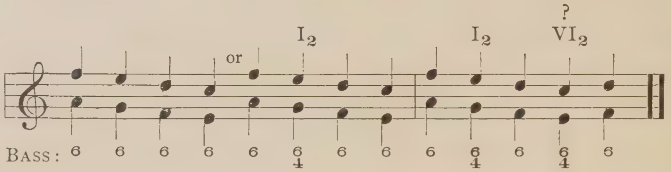
Ex. 144.


or
and
BASS:
etc.

These groups agree partly with Ex. 142.

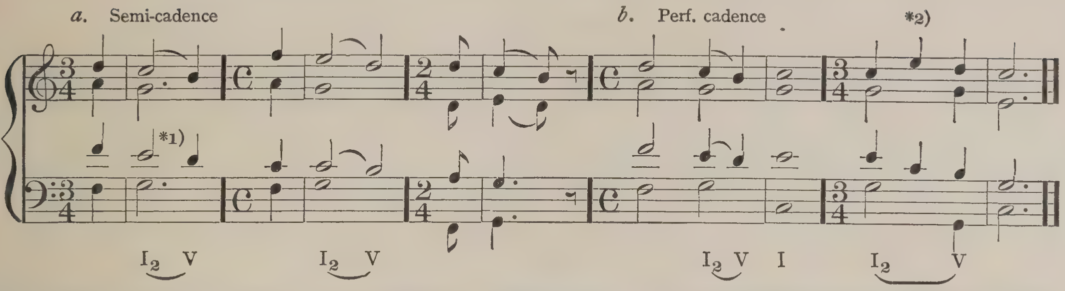
d. In a "line of 6ths" (Ex. 123*a*), a *good* 6–4 chord may be substituted for one of the 6ths. But see par. 171*b*.

Ex. 145.


or
I_2
I_2
?
VI_2
BASS:

193. The tonic 6–4 chord is of peculiar importance at both the semi-cadence and the perfect cadence, — in connection with the V. Thus:

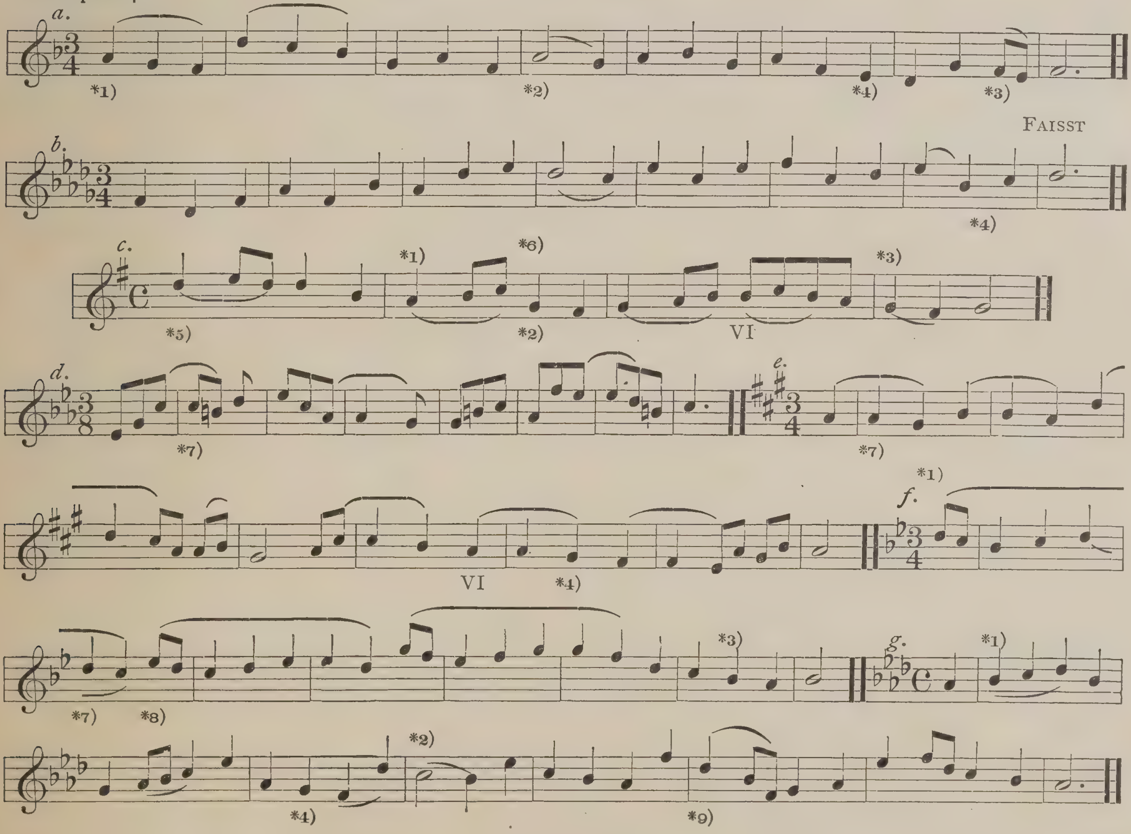
Ex 146.


a. Semi-cadence
b. Perf. cadence
*2)
*1)
I2 V
I2 V
I2 V I
I2 V

*1) The effect of the I_2 is to lighten and embellish the semi-cadence. — *2) If the melody-tone *just before the perfect cadence* calls for the I, it should not be the I itself, but some inverted form, — best, the second inversion.

EXERCISE TWENTY-SEVEN.

See par. 242.


a.
*1)
*2)
*4)
*3)
FAISST
b.
*4)
c.
*1)
*6)
*3)
*5)
*2)
VI
d.
*7)
e.
*7)
VI
*4)
*1)
f.
*7)
*8)
*3)
g.
*1)
*2)
*4)
*9)

*1) Ex. 143. — *2) Par. 193. — *3) Ex. 146, Note *2). — *4) Par. 137. — *5) Ex. 142. — *6) Par. 181. — *7) Ex. 144. — *8) The two measures beneath each slur represent the same melodic figure. When transferred thus to other (higher, or lower) scale-steps, the reproduction is called a **Sequence**. The same formation is seen in melody *a* (meas. 1, 2), and in melody *e* (meas. 1–3, 5–7). Sequences are usually harmonized uniformly. — *9) Par. 169*a*.

DIVISION B: DISCORDS.

194. A Discord is a harmonic body which contains one or more dissonant intervals.

195. The simplest dissonance is the interval of a **seventh,** which results naturally from adding one higher 3rd to the intervals of the triad. See par. 46*a*. The result is a four-tone chord, named **chord of the seventh,** after the dissonance which it contains (par. 48).

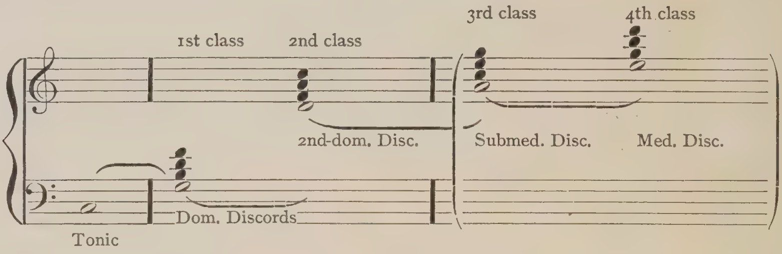
196. The chords of the 7th are the fundamental four-tone chords, corresponding to the triads, or fundamental three-tone chords. But they can not be classified in the same way as the latter, on account of the obligations connected with their dissonance, in fulfilling which their original independence as fundamental concords is to a certain degree sacrificed.

197. A dissonance has, as the term indicates, a harsh sound which the ear will accept only on condition that it be reasonably brief, and that it be justified by the intervals which precede and (especially) follow it. By itself, a dissonance in meaningless; it demands a progression which will fulfil its obligations. This impression of expectation characterizes the dissonant intervals, and imparts an activity to them which enlivens the harmony.

THE CLASSIFICATION OF THE DISCORDS.

198. *a.* The discords are divided into grades or **classes** representing their proportionate degrees of importance and consequent frequency. These classes are determined by **the distance of their roots from the tonic, in ascending harmonic degrees** (perfect fifths).

Ex. 147.



b. This table shows that there are only *four* fundamental chords of the seventh, or, in other words, discord *classes*. The discords which stand upon the other three steps of the scale (4th, 1st, 7th) are *derived* from these, in a manner which will be seen.

c. The tonic class is not numbered the "first," *because it is composed exclusively of concords. No tonic chord can become a discord*, without losing its tonic characteristic of repose, and becoming a member of one of the four *discord* classes.

d. Hence, the **dominant** chords constitute the **first** class, because they rest upon the first perfect fifth above the tonic note. And, similarly, the **second** class have the 2nd perf. fifth above the tonic as fundamental tone, and so on.

e. The third and fourth discord classes are so rare that they hardly enter into consideration in harmony. They are exclusively dissonant.

f. Therefore it is apparent that the tonic class (exclusively consonant) and the 1st and 2nd classes (both consonant and dissonant) represent together virtually the **three elements of the whole system of harmony.** See par. 70.

THE RESOLUTION OF A DISSONANCE.

199. The progression which satisfies the requirements of a dissonance is called its *resolution*, and the chord which follows a discord is the *resolving chord*.

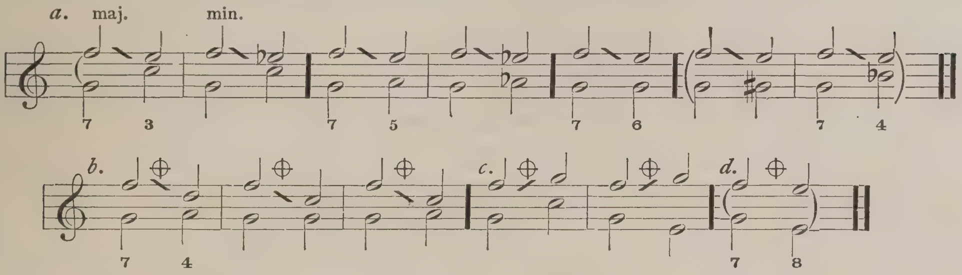
200. *a.* Every dissonance in music is resolved **diatonically,** in the majority of cases **downward.** Ex. 148*a*. The progression with a skip is *very irregular*, and can be justified only in repetitions. Ex. 148*b*.

b. The dissonance of a chord-seventh should not progress upward: Ex. 148*c.*

c. The interval of a 7th should not progress into an octave: Ex. 148*d.*

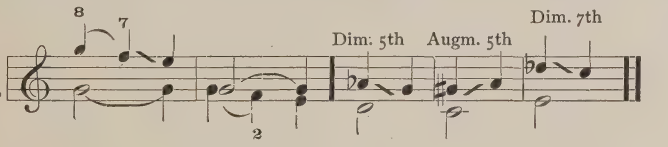
d. No dissonant interval should ever be doubled: comp. par. 69*d.*

Ex. 148.



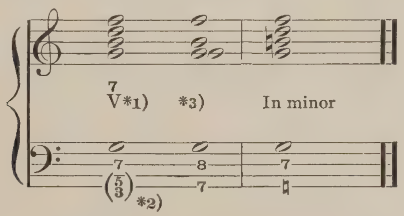
201. Dissonances often prove to be a modification of some consonant interval, and the direction of their resolution depends upon the nature of the modification. Augmented intervals have an upward tendency; diminished ones progress downward. The seventh of a chord may be regarded as a depression or contraction of the octave, and therefore it is always resolved downward. The 2nd, as inversion of the 7th, derives its progression from the latter.

Ex. 149.



SECTION I. THE FIRST CLASS OF DISCORDS.

A. THE CHORD OF THE SEVENTH UPON THE DOMINANT.



*1) Spoken: "Dominant-seventh," or "Five-seven." — *2) Ex. 102, Note *1). — *3) Par. 203*b.*

202. The chord of the dominant-seventh is obtained by adding another (higher) 3rd to the intervals of the dom. triad. The new interval, the chord-seventh, is the dissonance, requiring resolution. The dominant-seventh is employed in place of, or with, the triad V. The construction and treatment of the chord are the same in minor as in major, with the usual exceptions (Ex. 70).

203. *a.* There is no choice of position; and the chord-seventh may lie in any part.

b. The chord-fifth may be omitted, and the root doubled.

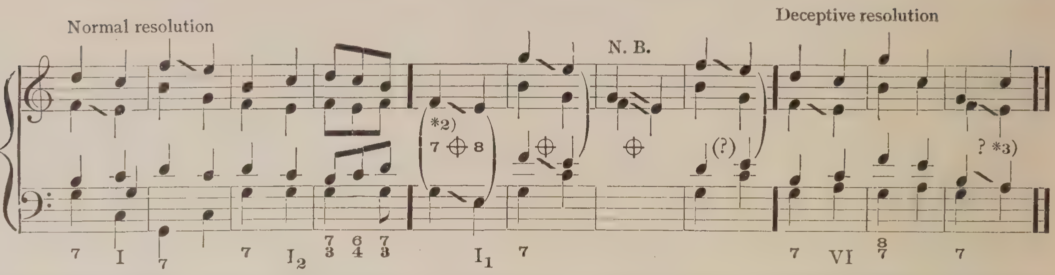
c. The chord-seventh progresses diatonically downward, and is not to be doubled.

204. *a.* The resolution of the $\overset{7}{V}$ **into the I** (or inversions) will be called **Normal,** because it corresponds to the normal progression (par. 78).

b. The resolution **into the VI** (the relative of the I) will be called **Deceptive** (par. 119).

c. Both the normal and deceptive resolutions are **regular,** because both lead into tonic chords (par. 100*b*).

Ex. 150. *1)


Normal resolution
Deceptive resolution
N. B.
*2)
7 ⊕ 8
⊕
⊕
(?)
? *3)
7 I 7 7 I₂ 7 3 6 4 7 3 I₁ 7 7 VI 8 7 7

*1) Separate measures, as usual. Alike in major and minor.—*2) See par. 200*c*. This error, which may be termed "unequal octaves," is quite as disagreeable as actual parallel octaves. The error is most obvious in measure 7. — *3) The parallel 5ths in the inner parts are also "unequal," because the first one is diminished and the second one perfect. For this reason they are not altogether wrong, as the rule applies strictly only to successive *perfect* 5ths. When the *second* 5th is perfect (as here the *a–e*), the consecutives had, however, better be avoided. The *b* in tenor should ascend to *c*, anyway.

The Introduction of the $\overset{7}{V}$.

205. Dissonances should be not only properly resolved, but also so smoothly introduced as to avoid needless harshness.

206. The regular modes of introducing a chord-seventh are:

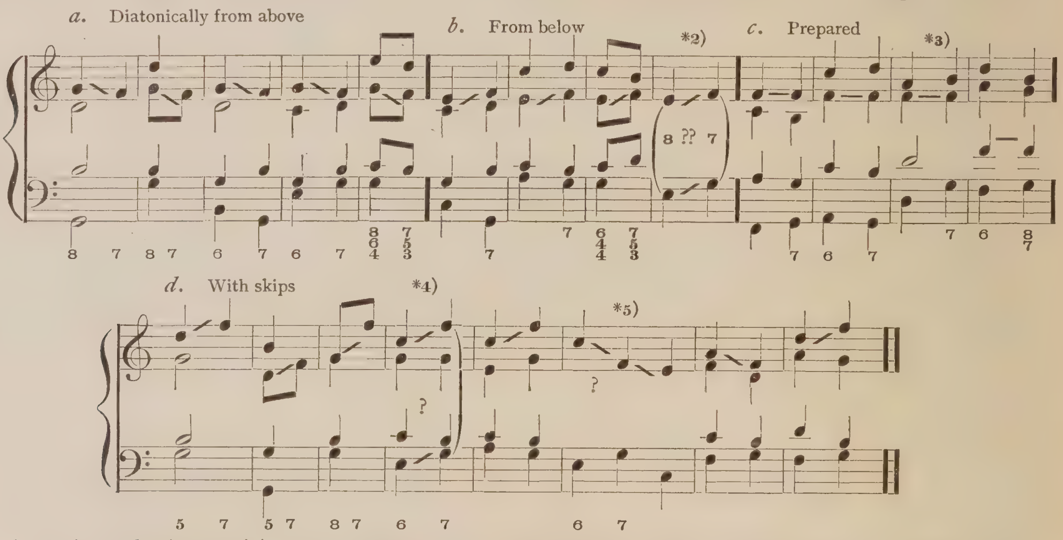
a. *Diatonically from above* (*i.e.*, the seventh preceded by the next higher tone);

b. Diatonically from below;

c. *By preparation* (*i.e.*, preceded by the same tone, as interval of another chord).

207. The introduction with a skip is somewhat irregular, but possible in all chords of the *First class*. Being a tone which resolves downwards, the skip *upward* to it is better than the downward leap (par. 31). For example:

Ex. 151. *1)


a. Diatonically from above
b. From below
*2)
8 ?? 7
c. Prepared
*3)
8 7 8 7 6 7 6 7 8 6 4 7 5 3 7 7 6 4 4 7 5 3 7 6 7 7 6 8 7
d. With skips
*4)
?
*5)
?
5 7 5 7 8 7 6 7 6 7

*1) In major and minor. — *2) Also "unequal octaves," but not quite as bad as the reverse. — *3) Major only. — *4) The leap upon the 7th, in parallel direction, and in the outer parts, is harsh. The following measure (soprano and alto) is permissible. — *5) Par. 207.

FUNDAMENTAL PRINCIPLES.

Discords are divided into Classes, according to the distance of their roots in harmonic degrees above the tonic.

Tonic chords are exclusively consonant.

The seventh of a chord is resolved diatonically downward, and is not doubled

The fifth may be omitted, in chords of the 7th.

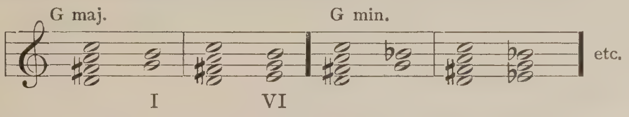
Unequal octaves are wrong. Unequal 5ths are doubtful when the second one is perfect.

The introduction of a 7th is regular when it enters diatonically, or is prepared.

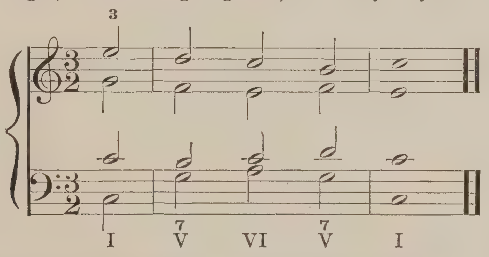
All reasonable licences are permissible in First-class chords.

EXERCISE TWENTY-EIGHT.

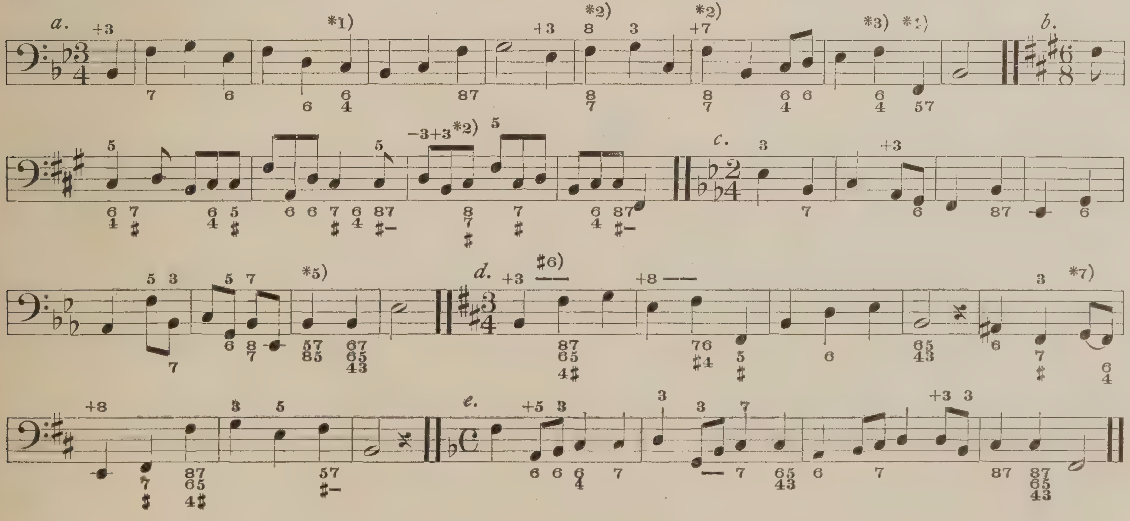
A. Write out the $\overset{7}{\text{V}}$ of every major and minor key, with its two resolutions, on one staff, as follows:

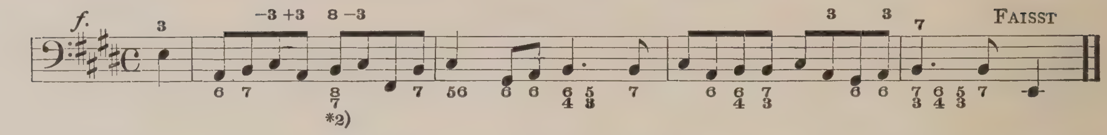


B. Transpose (at the piano, at sight) the following fragment, into every major and minor key:



C. Add the upper three parts to the following basses, — each chord complete, in succession, as it is no longer practicable to define the soprano alone.





g.

$\text{G major}\ \tfrac{3}{8}\ \text{I} \mid \text{I}_1\ \text{I}_2\ \overset{7}{\text{V}}\ \text{I}\ \text{I}_1 \mid \text{II}_1\ \overset{5}{\text{IV}}\ \overset{7}{\text{VV}} \mid \text{VI}\ \text{I}_1\ \text{II}_1 \mid \overset{7}{\text{V}}\ \text{I}_2\ \text{V} \mid \text{I}_1\ \overset{5—}{\text{IV}}\ \text{I}_1\ \text{V}_2\ \overset{3}{\text{I}} \mid \text{IV}_1\ \text{I}_2\ \overset{+3}{\text{IV}} \mid \overset{7}{\text{V}}\ \text{I}_2\ \text{V}\ \overset{7}{\text{V}} \mid \text{I} \parallel$

*1) Par. 189*b*. — *2) Chord-fifth omitted. — *3) Par. 193. — *4) Ex. 151*d*–2. — *5) Exercise 23, Note *1). — *6) The upper parts may all be held. — *7) Ex. 140.

D. To this exercise add a number of **Original phrases.**

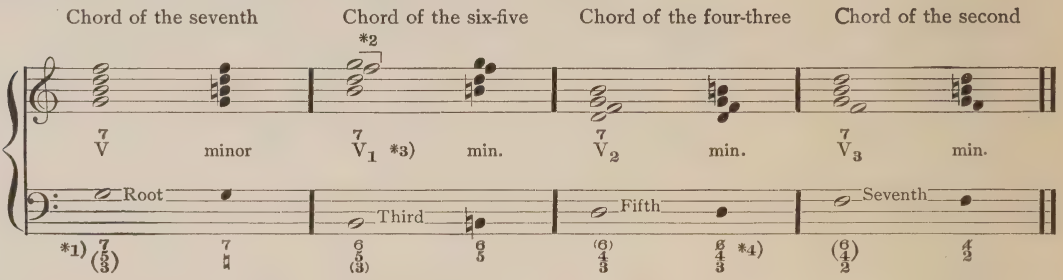
THE INVERSIONS OF THE DOMINANT-SEVENTH-CHORD.

208. All chords are inverted in the same manner, *i.e.*, by substituting some other chord-interval for the root, *in bass* (par. 141). A chord of the 7th (4-tone chord) has, obviously, three inversions, as follows:

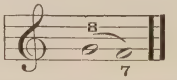
1st inversion, } as before { with the *third* in bass;
2nd inversion, } as before { with the *fifth* in bass;
3rd inversion, with the *seventh* in bass.

The inversions are figured and named according to par. 142. Thus:

Ex. 152.



*1) As usual, those figures which are understood, are generally omitted. — *2) The pair of adjacent notes always represent the intervals 8 and 7, that is, root and seventh; thus:



In other words, the *upper of these two tones is the root*, and consequently defines the chord. Therefore, the names of the three inversions merely indicate the intervals from the bass note to this pair of tones: $\frac{6}{5}$, $\frac{4}{3}$, and 2. — *3) Spoken: "Five-seven-one"; first the *name* of the chord, then its species, and lastly the number of its inversion. — *4) In minor, fuller figuring is necessary, on account of the leading-tone, which has an accidental.

209. The inversions appear, as usual, in place of the fundamental chord. The second inversion, like the 6–4 chords, is weak, but *not as much so* as the latter. The third inversion is beautiful and useful.

210. The inversions are treated, in general, like the chord of the seventh. The exceptions are:

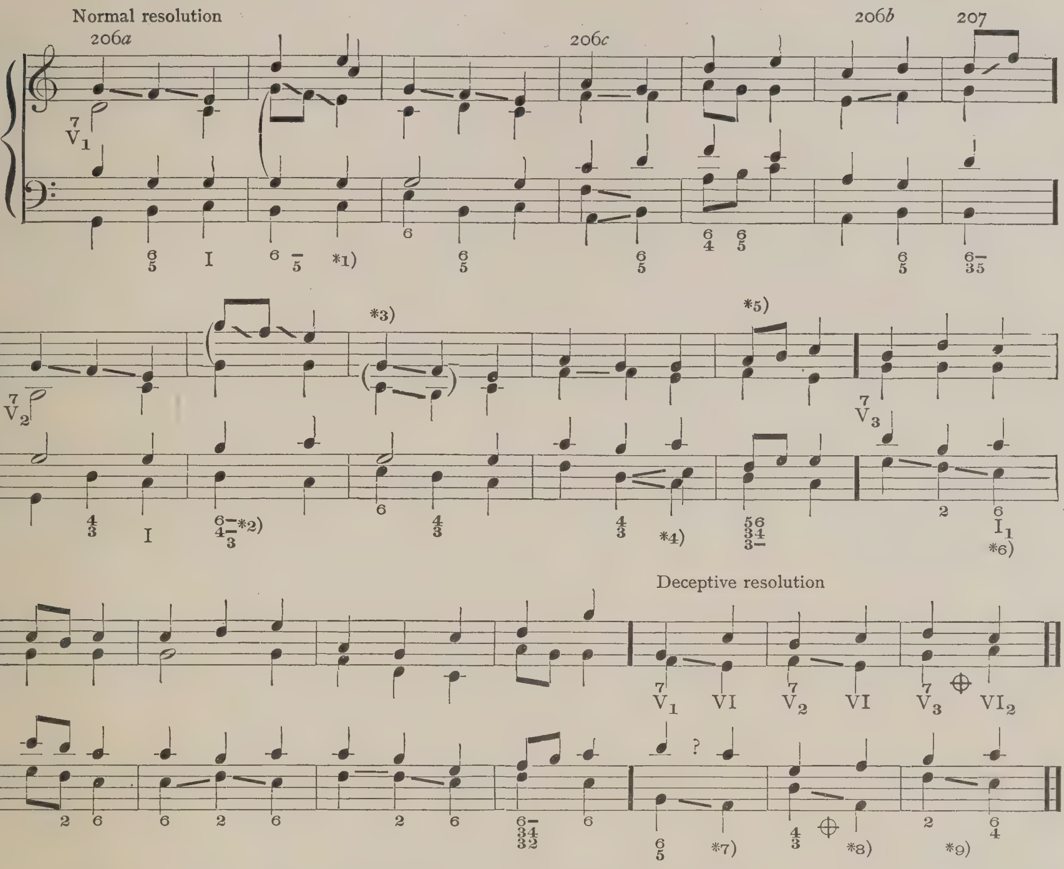
a. No interval should be omitted (par. 146*c*);

b. The inversions *are limited almost entirely to the normal resolution* (into the I and I$_1$).

The deceptive resolution (into the VI) is very rare in the first inversion, *impossible* in the second and third.

Review par. 206.

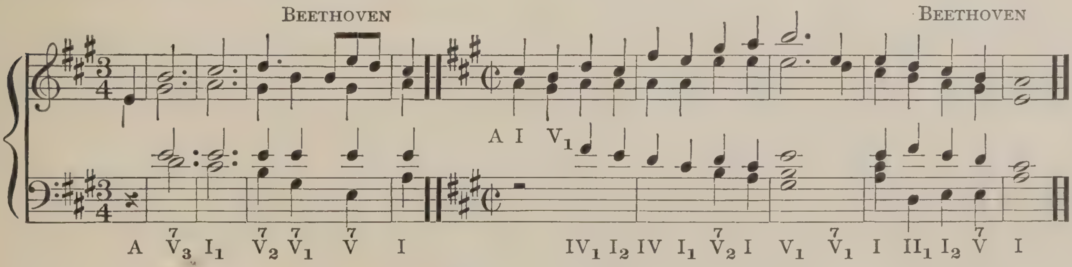
Ex. 153. *10)


Normal resolution
206a
206c
206b
207
$\overset{7}{V}_1$
6 5
I
6 — 5
*1)
6
6 5
6 5
6 4
6 5
6 5
6— 3 5
$\overset{7}{V}_2$
*3)
*5)
4 3
I
6— 4— 3 *2)
6
4 3
4 3
*4)
5 6 3 4 3—
$\overset{7}{V}_3$
2
6
I_1
*6)
Deceptive resolution
$\overset{7}{V}_1$ VI
$\overset{7}{V}_2$ VI
$\overset{7}{V}_3$ ⊕ VI_2
?
2 6
6 2 6
2 6
6— 3 4 3 2
6
6 5
*7)
4 3
⊕
*8)
2
6 4
*9)

*1) The figuring $\genfrac{}{}{0pt}{}{6-}{\ 5}$ equals $\genfrac{}{}{0pt}{}{6-}{65}$, the interval 6 being doubled. — *2) $\begin{smallmatrix}6-\\4-\\3\end{smallmatrix}$ equals $\begin{smallmatrix}6-\\4-\\43\end{smallmatrix}$, the interval 4 being doubled. — *3) These unequal 5ths are perfectly good, because the *second* one is not perfect. — *4) Either the I or I_1 may follow the 4-3 chord; but the I is better, as it avoids the duplication of *e*. — *5) Like Ex. 98-3. — *6) Obviously only the I_1 can follow the third inversion, as resolution of the chord-seventh in bass. — *7) The unequal 5ths, though doubtful, are not as noticeable *in alto and bass* as in any other two parts. — *8) Wide leap in bass; comp. par. 171*c*. — *9) Succession of weak chords. — *10) In minor as well as major, excepting where the 6th scale-step ascends to the seventh (Ex. 70).

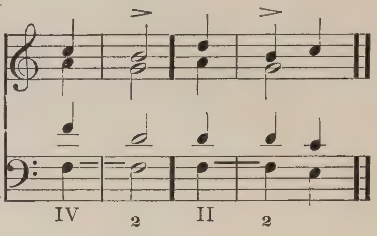
Further illustrations of the $\overset{7}{V}$ and inversions:

Ex. 154.


BEETHOVEN
BEETHOVEN
A I V_1
A $\overset{7}{V}_3$ I_1 $\overset{7}{V}_2$ $\overset{7}{V}_1$ $\overset{7}{V}$ I
IV_1 I_2 IV I_1 $\overset{7}{V}_2$ I V_1 $\overset{7}{V}_1$ I II_1 I_2 $\overset{7}{V}$ I

211. The rule of par. 85, concerning the repetition of a *bass tone*, is subject to an exception, as follows: An unaccented bass tone may be repeated over the bar or accent, *if it becomes a dissonance.* Thus:

Ex. 155.



FUNDAMENTAL PRINCIPLES.

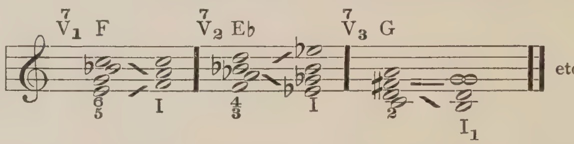
In an inversion, no chord-interval is omitted.

The deceptive resolution is applied *only* to the $\overset{7}{V}$, — not to its inversions.

A *chord* may be repeated over the bar, if its bass changes; a *bass tone* may be repeated over the bar, if it becomes dissonant.

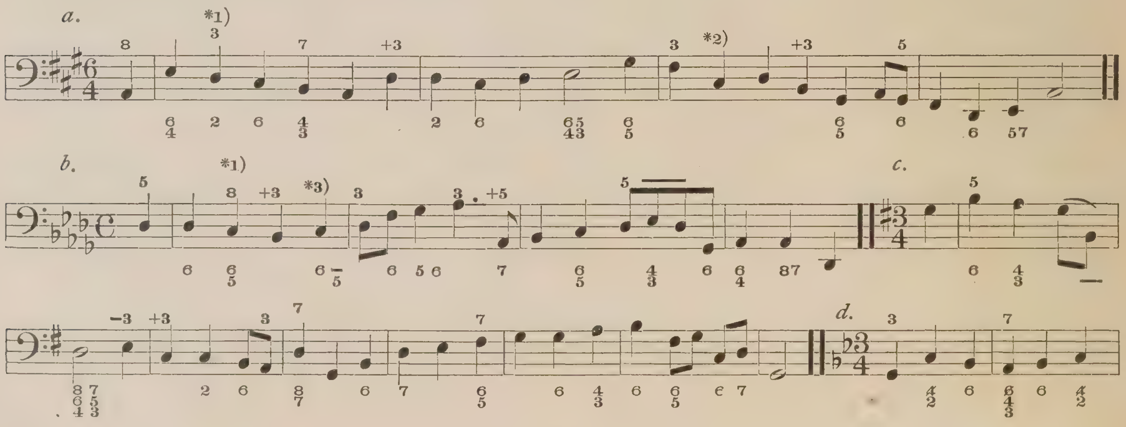
EXERCISE TWENTY-NINE.

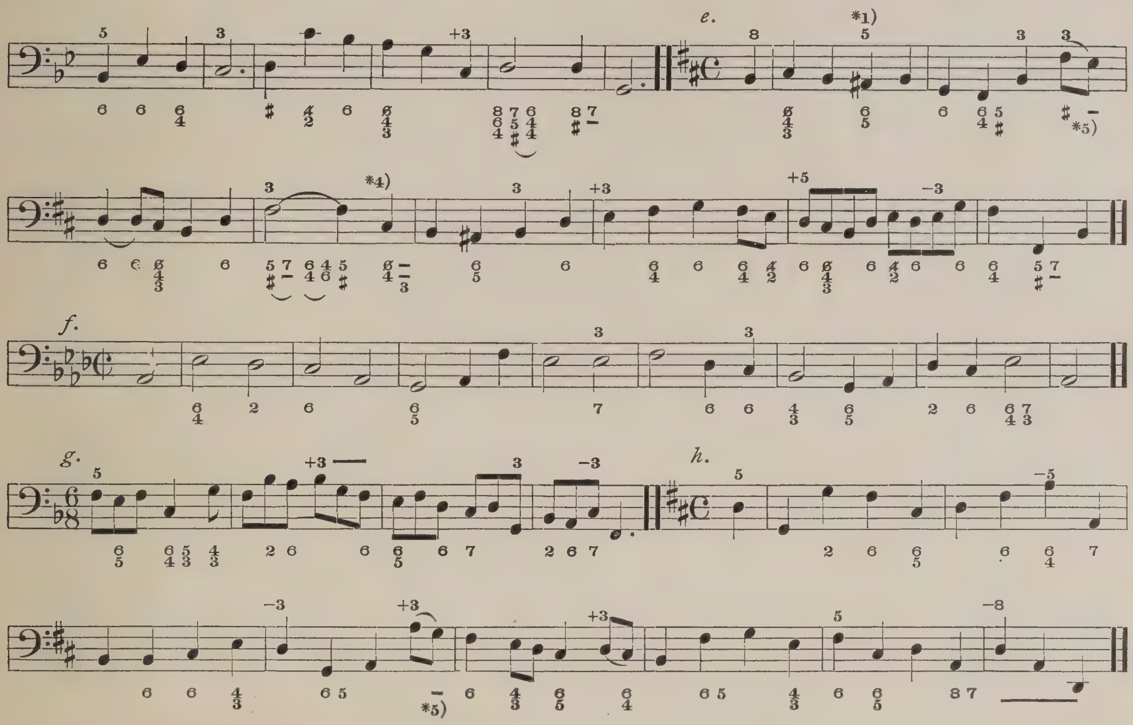
A. Write out the $\overset{7}{V}_1$ of *F, G, B♭, D, E♭, A, E, A♭, D♭, B, G♭ majors;* the $\overset{7}{V}_2$ of *e♭, g♯, b♭, f, c♯, f♯, c, b, g, e, d minors;* and the $\overset{7}{V}_3$ of *G, F, B♭, D, A, E♭, A♭, B, E, D♭, F♯ majors,* — with their resolutions, on one staff, as follows:



Afterwards, find these same chords and their resolutions *at the piano*, with the right hand alone, without reference to the table.

B. Basses. (The position-figures may be ignored.)





*1) Positions are reckoned from the *root.* — *2) Par. 123*a.* — *3) Ex. 153, Note *1). — *4) Ex. 153, Note *2). — *5) The upper parts are held.

C. To this exercise add a number of **Original phrases.**

IRREGULAR RESOLUTIONS OF THE DOMINANT-7TH-CHORDS.

212. The majority of licences in the treatment of dependent chords and intervals appear at **repetitions,** where, as has been shown, all rules are suspended.

213. The licences which attend *chord-repetition* are of two general classes, namely:

a. The resolution of the active tone itself is *deferred*, by the interposition of some other interval or intervals of the *same chord;*

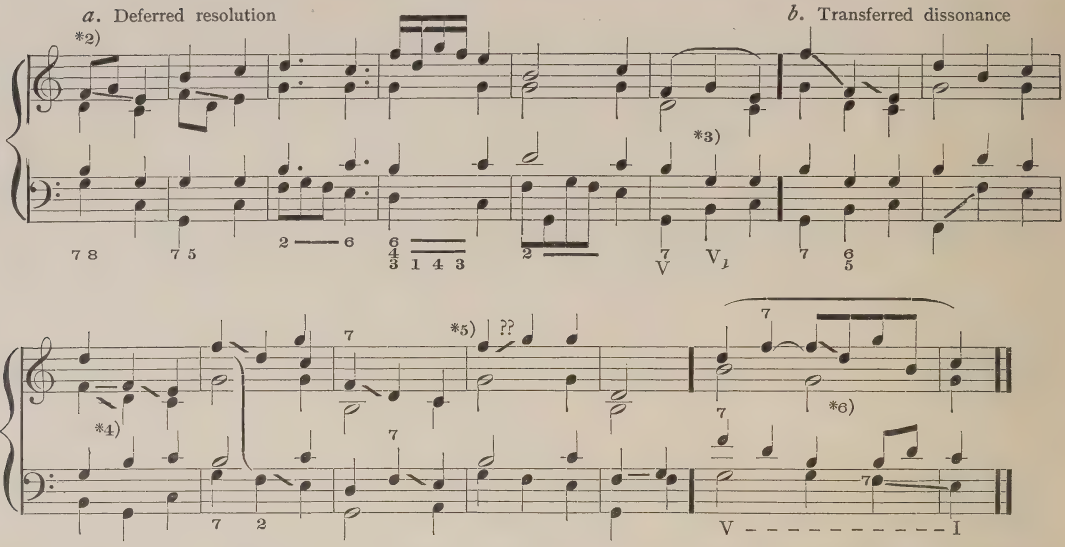
b. The active tone is *transferred* to another part, and there resolved. These all constitute "modified repetition."

214. *a.* Hence, *when the chord remains the same*, any *convenient* interval or intervals may be interposed between the chord-seventh and its resolving-tone. (Deferred resolution.)

b. When the chord is repeated, it may change its form, its position, and the disposition of its intervals to any reasonable extent; the seventh is likely to be *transferred* from one part to another without any other restriction than this: being a tone with downward tendency, it is most apt, even when the chord remains the same, to progress to a *lower tone.*

c. In all of these deferred resolutions the seventh is ultimately resolved *in the part where it last appeared.*

Ex. 156. *1)

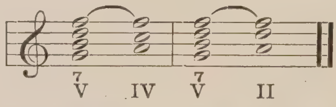


*1) Major and minor. — *2) The 7th moves upward; but in reality the *g* is only an interposed interval of the same chord, and does not interfere with the ultimate resolution into *e*. — *3) Here another form of the chord intervenes, before the resolution takes place. — *4) The 7th is transferred from the alto to the soprano, and is resolved in the *latter* part. — *5) The 7th in soprano, though transferred to the bass and resolved there, should progress *downward* to *d* or *b*, and not upward. The following measure is better, because the 7th in tenor is taken up by the bass in the same register. — *6) Here the chord-seventh disappears altogether for a moment.

The Passive resolution.

215. Another kind of licence is a Digression or Indirect resolution, which consists in interposing a *foreign chord* before the resolution takes place. It is another form of "deferred" resolution, but less common than that of modified repetition. The foreign chord must be reasonably *brief*, and must be in some way connected with the discord whose progression it interrupts.

216. *a.* The foreign chords which intervene between the $\overset{7}{V}$ and its regular resolving-chords are the two subdominant or **second-class** chords IV and II, in both of which *the seventh of the dominant occurs as consonant chord-interval*, thus constituting a connecting-link. For example:



b. This chord-progression may be termed a **Passive resolution,** because the 7th, in becoming a consonant interval, is actually resolved, passively, through the other parts. It corresponds to Exs. 67 and 79, but is more feasible, because of the connective link which the seventh provides.

217. The consonant condition thus gained by the 7th does not compensate for the actual regular resolution. Hence:

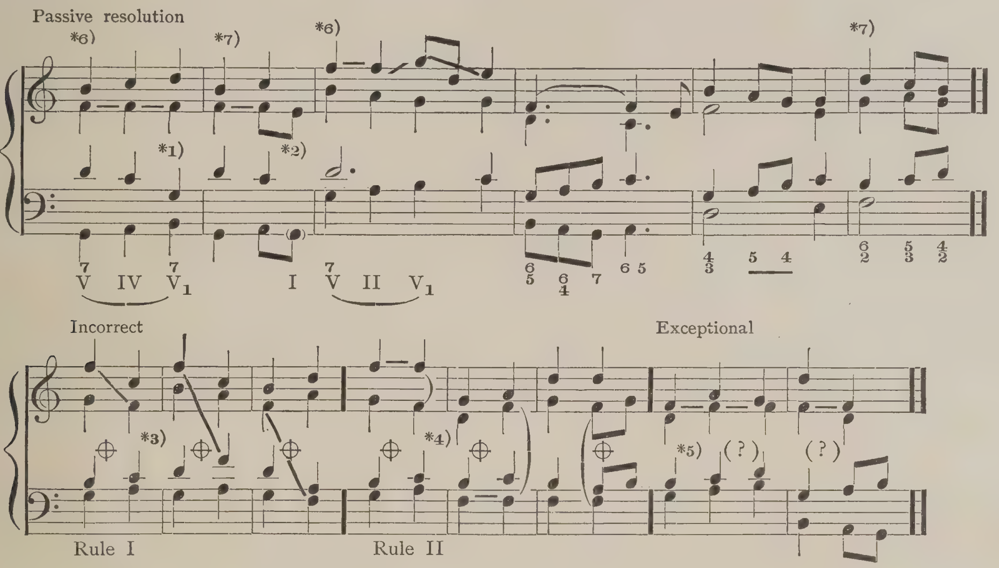
a. The passive resolution is usually only a digression *from the discord and directly back to it* (perhaps in a new form); thus: $\overset{7}{V}$–(IV or II)–$\overset{7}{V}$: or $\overset{7}{V}$–(IV or II)–$\overset{7}{V}_1$, or $\overset{7}{V}_2$. Compare Ex. 67, Note *2).

b. Much more rarely, it is interposed *between the discord and its resolving-chords;* thus: $\overset{7}{\mathrm{V}}$–(IV or II)–I, or VI.

c. Rule I. The seventh must *remain stationary, i. e.*, in the same part.

d. Rule II. The seventh should not be *doubled*, or otherwise disturbed, during its transient *consonant* condition.

Ex. 157.


Passive resolution
*6)
*7)
*6)
*7)
*1)
*2)
7 V
IV
7 V1
I
7 V
II
V1
6 5
6 4
7
6 5
4 3
5 4
6 2
5 3
4 2
Incorrect
Exceptional
*3)
*4)
*5)
(?)
(?)
Rule I
Rule II

*1) Par. 217*a.* — *2) 217*b.* — *3) The 7th must remain in the same part *when the harmony changes.* Par. 217*c.* — *4) The *f* in alto is wrong, because it doubles the passive seventh. Par. 200*c.* — *5) These measures, in which the passive 7th changes parts, are exceptional, but admissible, because the tone remains in the same register. — *6) Major only. — *7) Major and minor.

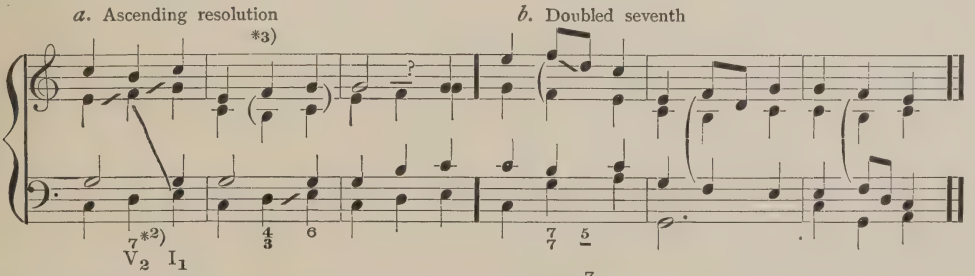
OTHER IRREGULAR RESOLUTIONS.

218. Besides the above licences there are two other irregularities which are peculiar to the chord of the dominant-seventh:

a. The 7th may be resolved diatonically *upward*, when the bass part moves *parallel with it, in 3rds;* and

b. The seventh may be *doubled*, when one seventh progresses to another chord-interval before the other is resolved. Thus:

Ex. 158. *1)


a. Ascending resolution
*3)
?
b. Doubled seventh
7*2)
V2 I1
4 3
6
7 7
5

*1) Major and minor. — *2) This licence is limited to the chords $\overset{7}{\mathrm{V}}_2 - \mathrm{I}_1$; in no other case would the bass move with the ascending 7th, in parallel 3rds. It is not to be confounded with the first measure of Ex. 156, where the 7th progresses upward, but *returns* to its resolving-tone. — *3) These 5ths are allowed. They are unequal; and they seem to be fully disguised by the parallel movement of each part with the bass (comp. par. 66).

FUNDAMENTAL PRINCIPLES.

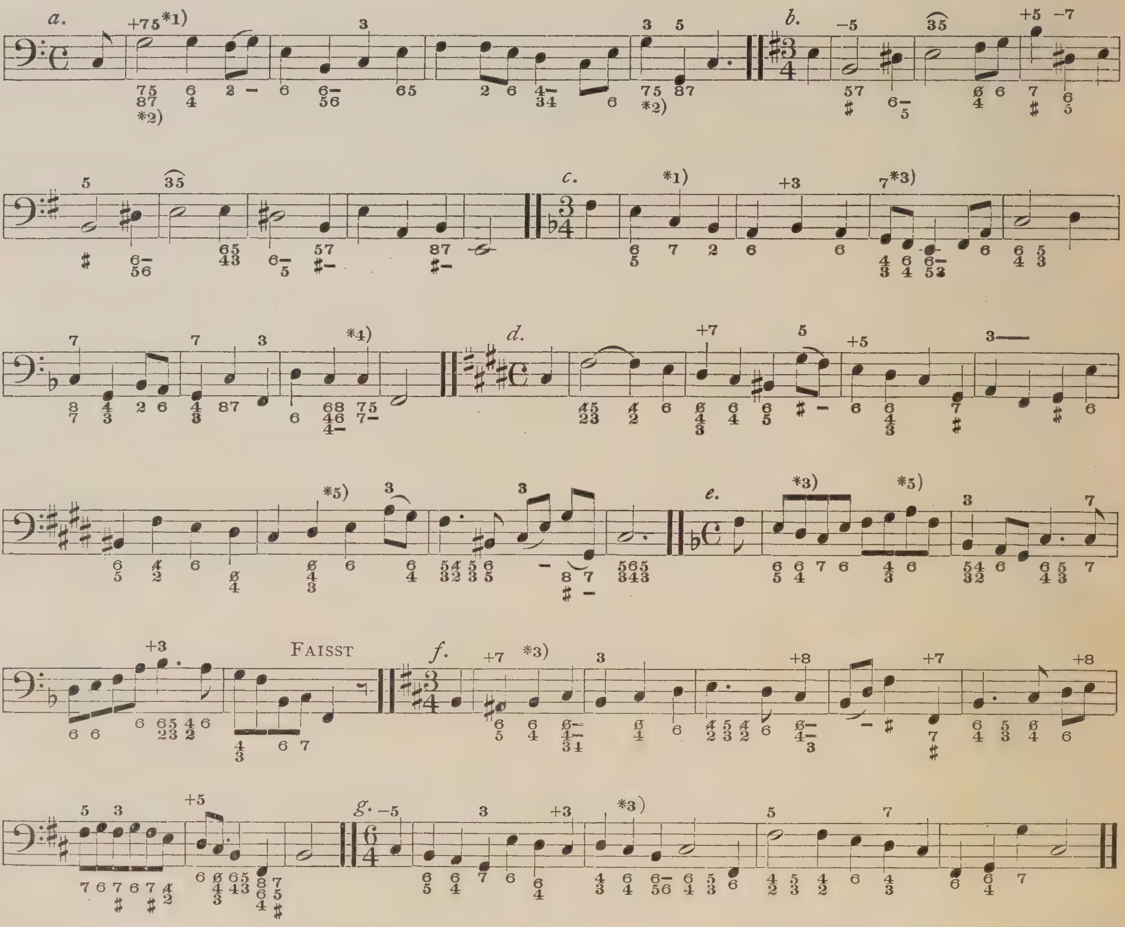
When the dom. discord is *repeated*, it may change its form in any reasonable manner, deferring the resolution, if desired.

The passive resolution of dom. discords is effected by Second-dom. chords, the chord-seventh *remaining stationary*.

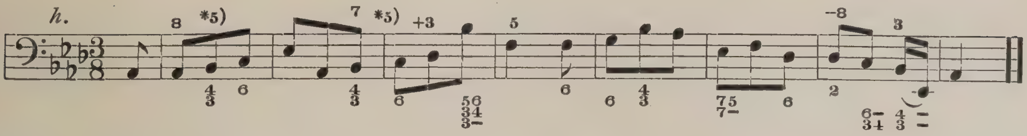
The seventh of the dom. chord may be resolved diatonically upward when the bass accompanies it in parallel thirds.

EXERCISE THIRTY.

A. Basses. (The positions may be ignored.)



h.



*1) Ex. 156*b.* — *2) As usual, the rows of figures indicate the course of the upper parts. — *3) Par. 217*c*, *d.* — *4) Par. 218*b.* — *5) Par. 218*a*.

B. Play the following chord-progressions *slowly*, at the piano, in different major and minor keys. At first with the right hand alone; afterwards with both hands, the bass alone in the left hand:

$$\mathrm{I}-\overset{7}{\mathrm{V}}-\overset{7}{\mathrm{V}}_3-\overset{\frown}{\mathrm{I}}_1 \,\|\, \overset{7}{\mathrm{V}}_2-\overset{7}{\mathrm{V}}_3-\overset{\frown}{\mathrm{I}}_1 \,\|\, \overset{7}{\mathrm{V}}_1-\overset{7}{\mathrm{V}}-\overset{\frown}{\mathrm{VI}} \,\|\, \overset{7}{\mathrm{V}}-\mathrm{I}_2-\overset{7}{\mathrm{V}}_3-\overset{7}{\mathrm{V}}_2-\overset{\frown}{\mathrm{I}} \,\|\, \overset{7}{\mathrm{V}}-\mathrm{IV}_1-\overset{7}{\mathrm{V}}-\overset{\frown}{\mathrm{I}} \,\|$$

Major only

$$\left(\overset{7}{\mathrm{V}}_1-\mathrm{II}_2-\overset{7}{\mathrm{V}}-\overset{\frown}{\mathrm{VI}}\right) \|\, \overset{7}{\mathrm{V}}_2-\mathrm{IV}_2-\overset{7}{\mathrm{V}}_1-\overset{\frown}{\mathrm{I}} \,\|\, \overset{7}{\mathrm{V}}_3-\mathrm{IV}-\overset{7}{\mathrm{V}}_3-\overset{\frown}{\mathrm{I}}_1 \,\|\, \overset{7}{\mathrm{V}}-\underset{\smile}{\mathrm{IV}_1-\overset{\frown}{\mathrm{VI}}} \,\|$$

Major only

$$\overset{7}{\mathrm{V}}_1-\underset{\smile}{\mathrm{IV}_2-\overset{\frown}{\mathrm{I}}} \,\|\left(\overset{7}{\mathrm{V}}-\underset{\smile}{\mathrm{II}_2-\overset{\frown}{\mathrm{VI}}}\right) \|\, \overset{7}{\mathrm{V}}-\mathrm{IV}_1-\mathrm{I}_2-\underset{\smile}{\mathrm{V}-\overset{7}{\mathrm{V}}_3}-\overset{\frown}{\mathrm{I}}_1 \,\|$$

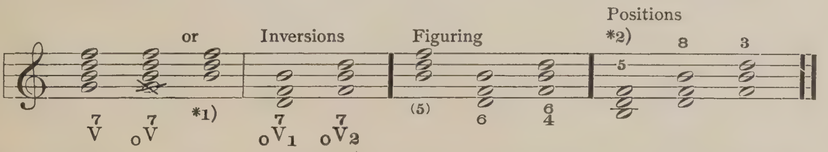
C. A number of **Original phrases.**

B. THE INCOMPLETE CHORD OF THE DOMINANT-SEVENTH,
or, the triad upon the leading-tone.

219. *a.* The root is the interval upon which the identity of a chord naturally depends; but when the other chord-intervals are of such a nature that they define their chord beyond a reasonable doubt *without the root*, the latter may be omitted without obscuring the harmony.

b. This is naturally not often the case in *three*-tone chords, but is not unusual in those of *four* tones, and almost obligatory in those with *five*. When applied to the chord of the dominant-seventh the result is as follows:

Ex. 159.



*1) Spoken: "Five-seven, incomplete." The term "Incomplete" in this book invariably signifies "*without the root*," and is indicated by the o. The inversions are not reckoned from the *actual* root, but, for convenience, from the *apparent* root (the third of the fundamental chord). — *2) The positions, also, are reckoned from the lowest tone of the *triad*, as in ordinary chords.

220. *a.* The incomplete $\overset{7}{\mathrm{V}}$ is the triad upon the leading-tone (par. 53), with its inversions.

b. Like the $\overset{7}{\mathrm{V}}$ itself, it is alike in form and treatment in major and minor.

c. It is a *diminished triad*, because its fifth is diminished, and therefore a discord, though but a 3-tone chord. The diminished 5th is the dissonance (par. 40*e*).

221. The reasons why this chord must be regarded as a derivative of the $\overset{7}{\mathrm{V}}$, instead of as an independent chord with the corresponding designation (VII), may be demonstrated as follows:

1, because it contains the leading-tone, the chief characteristic of the dominant harmonies, as *apparent* harmonic basis (par. 73*a*);

2, because its most natural progression (resolution) is into the I and VI, exactly like the $\overset{7}{\mathrm{V}}$. This is naturally owing to the tendency of its leading-tone, and to the coincidence of its dissonance (the dim. 5th) with the dissonance of the $\overset{7}{\mathrm{V}}$;

3, because the comparison of this chord with the $\overset{7}{\mathrm{V}}$ discloses a similarity of effect not to be found or expected between *different* chords.

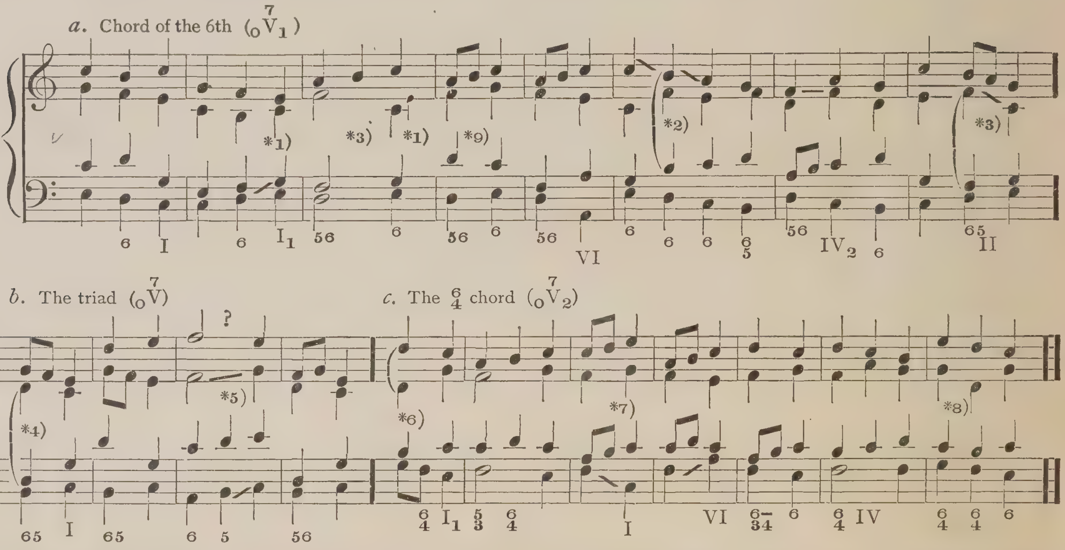
222. *a.* The dissonance, being no longer an *actual* 7th, is not obliged to resolve diatonically downward, but may (especially when approached from below) progress *diatonically upward.*

b. Either the 3rd or 5th of the triad may be doubled. When the latter (the dissonance) is doubled, the two tones generally move in opposite directions.

c. The best and *far most frequent form* of this dim. triad, is *the chord of the sixth.* The *triad itself* is rarely used, because of the prominence of the dim. 5th. The 6–4 chord is better than the triad, and stronger than other (consonant) 6–4 chords, and occurs in the usual three connections (par. 173, etc.).

d. The resolutions correspond to those of the $\overset{7}{\mathrm{V}}$ complete, *i.e., normal,* into the I (I_1); *deceptive,* into the VI; *passive,* into the IV and II. For example:

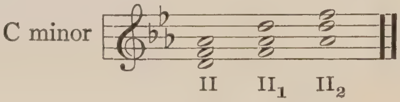
Ex. 160.


a. Chord of the 6th ($_0\overset{7}{\mathrm{V}}_1$)
*1)
*3)
*1)
*9)
*2)
*3)
6
I
6
I_1
56
6
56
6
56
VI
6
6
6
$\frac{6}{5}$
56
IV_2
6
65
II
b. The triad ($_0\overset{7}{\mathrm{V}}$)
?
*4)
*5)
65
I
65
6
5
56
c. The $\frac{6}{4}$ chord ($_0\overset{7}{\mathrm{V}}_2$)
*6)
*7)
*8)
$\frac{6}{4}$
I_1
$\frac{5}{3}$
$\frac{6}{4}$
I
VI
$\frac{6-}{34}$
6
$\frac{6}{4}$
IV
$\frac{6}{4}$
$\frac{6}{4}$
6

*1) The 3rd scale-step is very often doubled in connection with these incomplete chords, as it conduces to smooth progression. — *2) The leading-tone may be thus doubled, when the two tones progress *diatonically in contrary motion,* as here. — *3) This skip from the dissonance (*f*) is justifiable in any part but soprano. — *4) Par. 162. — *5) The unequal 5ths in bass and alto are barely excusable. — *6) Par. 191*a*, *b*. — *7) The skips in bass from the dissonance, in this measure and the next, are irregular and unusual, but excusable on the ground of par. 222*a*, and the quality of *f* as a principal tone of the scale. — *8) The two successive 6–4 chords (contrary to par. 171*b*) are allowed because one is the I_2 (Ex. 126), and the other a *discord* (par. 222*c*). — *9) See Ex. 118, No. 6; also par. 137.

THE II IN MINOR.

223. This is also a diminished triad, and consequently a discord. It belongs properly to the 2nd Class of chords, as its root is the second-dominant (Ex. 147), therefore its treatment at this place is premature, but justified by its importance. It resembles the incomplete $\overset{7}{\mathrm{V}}$ in general character and treatment. In structure it corresponds of course to the major II:

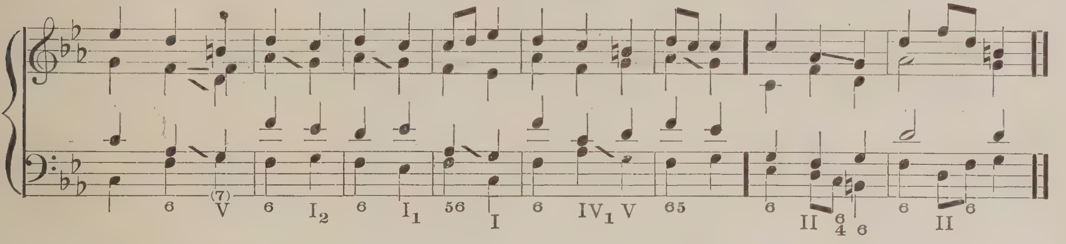

C minor
II
II_1
II_2

224. *a.* This dim. triad differs from the incompl. dom.-7th in being a *fundamental* chord, and not a *derivative*. Therefore it is used more independently and more frequently than the former.

b. Its treatment is very nearly the same as in major. The dissonance (dim. 5th) is, at the same time, the *dominant leading-tone* (par. 106), and is resolved diatonically downward to the dominant; consequently, the resolving-chords will be such as contain the dominant note, viz., the V, $\overset{7}{V}$, or I. The passive resolution into the IV (which contains the dissonance as consonant interval) is effective, as transient progression.

c. As before, *the best form is the chord of the 6th.* The triad itself is *very rare.* The 2nd inversion is, as discord, stronger than ordinary 6–4 chords. Comp. par. 222*c.*

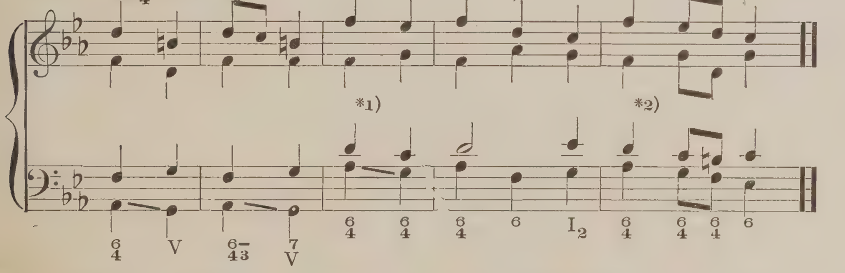
Ex. 161. (Minor)


a. Chord of the 6th

b. The triad

6
(7) V
6
I2
6
I1
56
I
6
IV1 V
65
6
II 6 4 6
6
6
II

c. The $\frac{6}{4}$ chord


*1)
*2)
6 4
V
6– 43
7 V
6 4
6 4
6 4
6
I2
6 4
6 4
6 4
6

*1) In *major*, this would be palpably incorrect; in *minor* it is good, because one of the 6–4 chords is a discord. — *2) Of these three successive 6–4 chords, two are discords, and the other is the I_2.

FUNDAMENTAL PRINCIPLES.

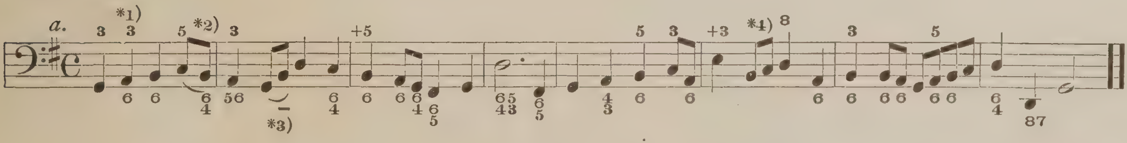
The triad on the leading-tone is an incomplete dom.-seventh chord, and is treated accordingly.

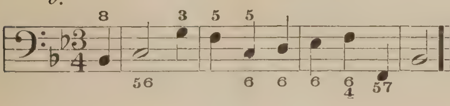
The only good form of a diminished triad ($_{o}\overset{7}{V}$ and II in minor) is the *chord of the 6th.*

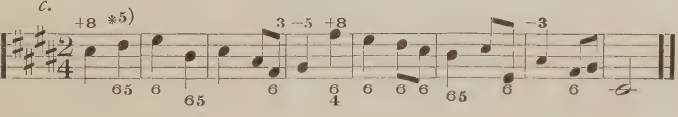
Successive 6–4 chords are allowed if one is a discord.

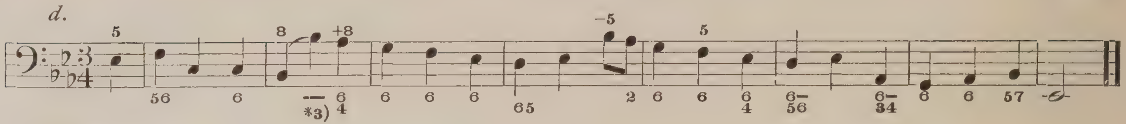
EXERCISE THIRTY-ONE.

A. **Major.**

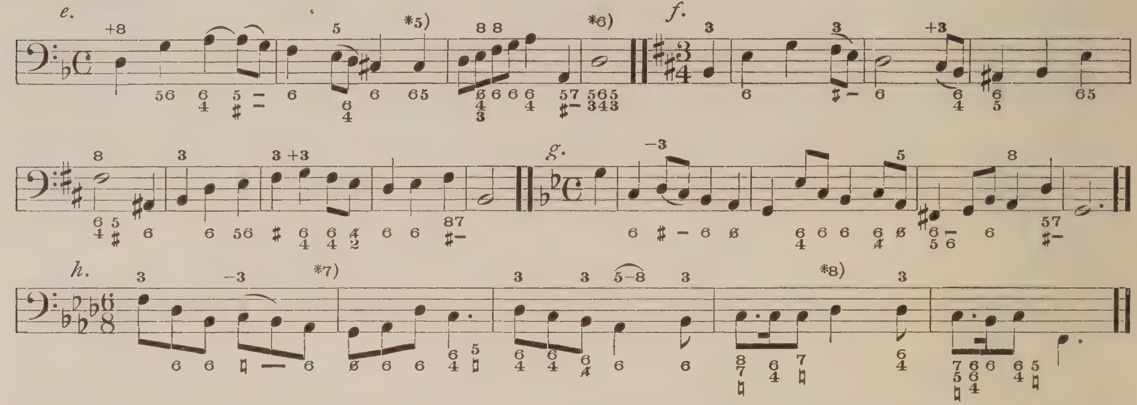

a.
*1)
*2)
*3)
*4)
3 3 5 3 +5 5 3 +3 8 3 5
6 6 6 4 56 6 4 6 6 6 4 6 5 65 43 6 5 4 3 6 6 6 6 6 6 6 6 6 4 87


b.
8 3 5 5
56 6 6 6 6 4 57


c.
+8 *5)
3 –5 +8 –3
65 6 65 6 6 4 6 6 6 65 6 6



B. **Minor.**



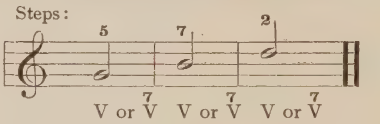
*1) Ex. 159, Note *2). — *2) Ex. 140. — *3) The upper parts are held. — *4) Par. 123*a*. — *5) Par. 162. — *6) Plagal. (Rhythm ♩ ♩ 𝅗𝅥). — *7) Par. 157. — *8) Deceptive cadence.

C. **Original phrases.**

MELODY–HARMONIZING. DOMINANT-SEVENTH.

225. The dominant discords appear naturally as substitutes for the concord. Therefore, the dom.-seventh chord may be used for any scale-step contained in the V. Thus:

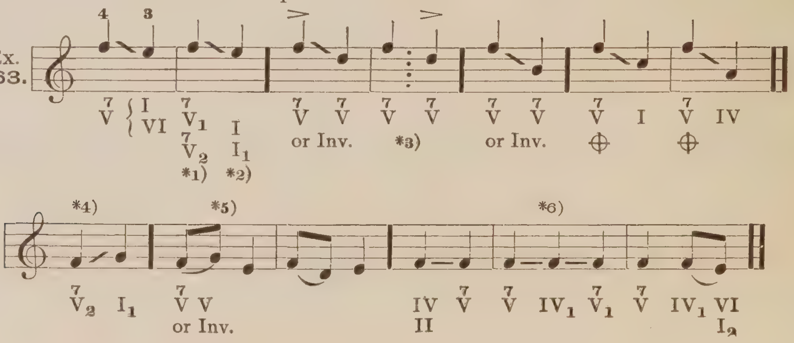
Ex. 162.


Steps:
5
7
2
V or V7
V or V7
V or V7

The *inversion* depends upon circumstances, but is easily determined.

226. Further, the dom.-seventh chord may be used in harmonizing the *fourth scale-step*. This has hitherto been harmonized with the second-dominant chords (IV or II), and these will still be necessary when the 4th step *ascends*, or makes any other movement antagonistic to its resolution as *chord-seventh* of the dominant. For example:

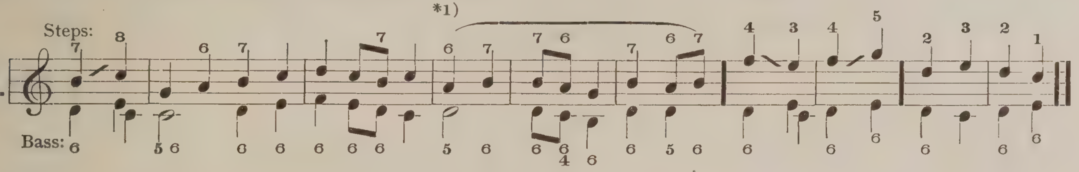
Ex. 163.


4
3
V7 { I / VI
V7 1
V7 2
I
I1
*1)
*2)
V7 V7
or Inv.
V7 V7
*3)
V7 V7
or Inv.
V7 I
V7 IV
*4)
V7 2 I1
*5)
V7 V
or Inv.
*6)
IV / II
V7
V7
IV1
V7 1
V7
IV1 VI / I2

*1) Not the V_3^7, because the seventh cannot be doubled in bass and soprano. — *2) Not the VI; see par. 210*b*. — *3) Good, if the *bass note* changes. — *4) This is the one possible case where the *ascending* 4th step may be harmonized with a dom. discord; but it is rare; see Ex. 158*a*. — *5) Ex. 156*a*. — *6) Passive resolution.

227. The Incomplete dom.-seventh may be used for the 7th, 2nd and 4th scale-steps, but is chiefly used for the *7th step*, which it harmonizes with the chord of the 6th. Thus:

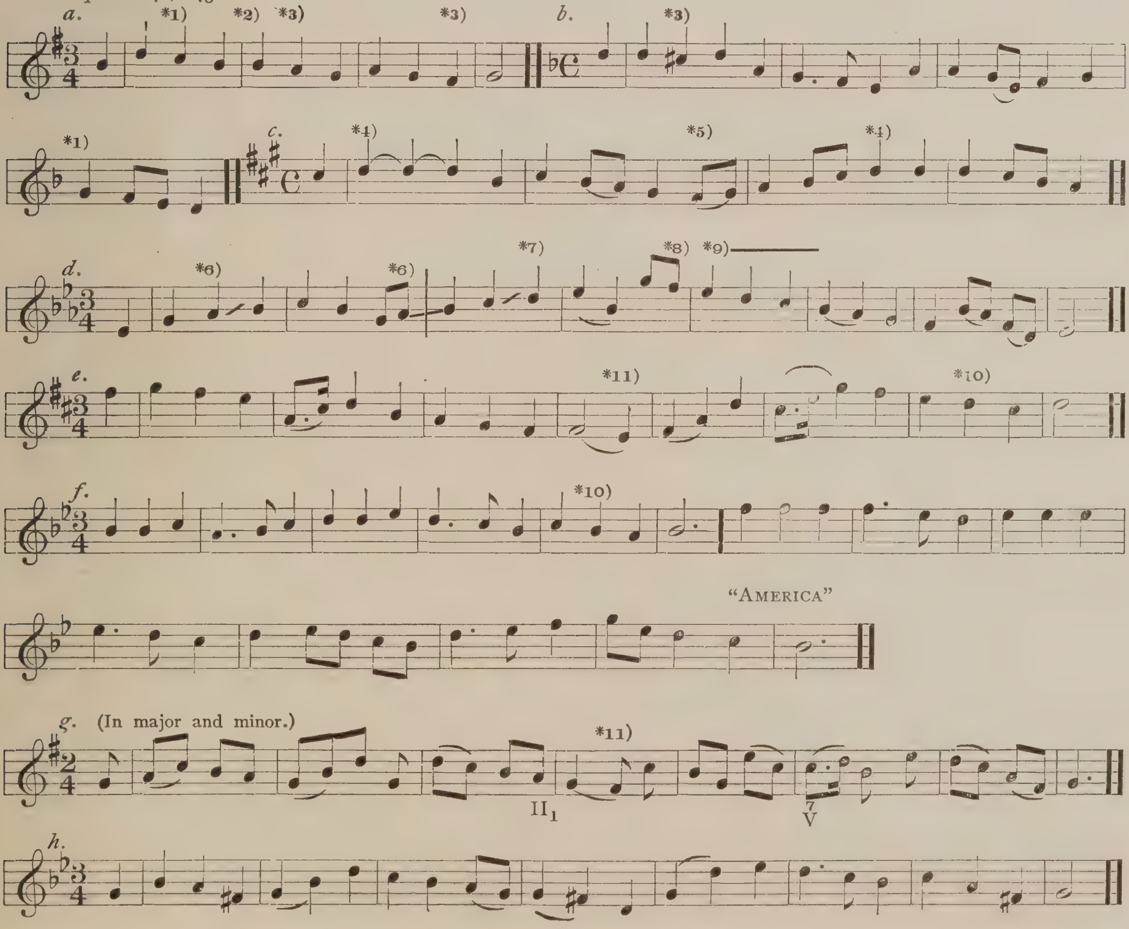
Ex. 164.


Steps:
*1)
Bass:

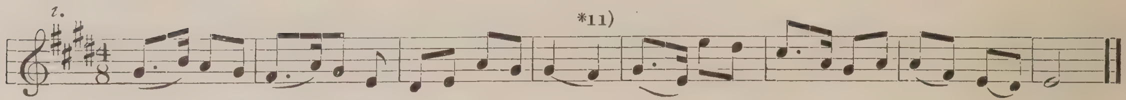
*1) This demonstrates the usefulness of the incompl. dom.-7th, in the case of these irregular melodic successions.

EXERCISE THIRTY-TWO.

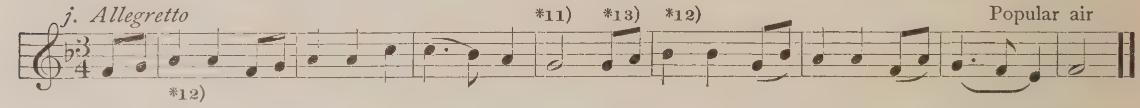
See pars. 242, 243.


a.
*1)
*2)
*3)
*3)
b.
*3)
*1)
c.
*4)
*5)
*4)
d.
*6)
*6)
*7)
*8) *9)
e.
*11)
*10)
f.
*10)
"AMERICA"
g. (In major and minor.)
*11)
II1
V7
h.

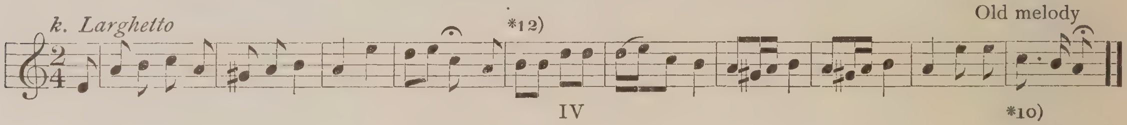
i.



j.



k.



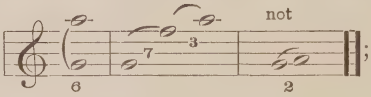
*1) Par. 226. — *2) Ex. 144. — *3) Par. 225. — *4) Passive resolution. — *5) Ex. 164. — *6) Ex. 163, Note *4). — *7) Par. 227. — *8) Ex. 143. — *9) Successive 6ths. — *10) Ex. 146, Note *2). — *11) It is better *not to use the discord of the dominant*, as semi-cadence chord, but the simple V. — *12) Same chord, unchanged, for the repeated notes. — *13) Ex. 118–2.

C. The Chord of the Ninth upon the Dominant.

228. *a.* This five-tone chord is obtained by adding another higher third to the intervals of the $\overset{7}{V}$.

b. The new interval is a *ninth* from the root, and its most important characteristics are:

1st, that, being related most directly to the seventh (upon which the last third is erected), it must always be *at least 9 tones* (7+3) *from the root*, and therefore *can never be contracted to a 2nd.* Thus:



; and,

2nd, that it cannot appear *without the seventh.* Consequently,

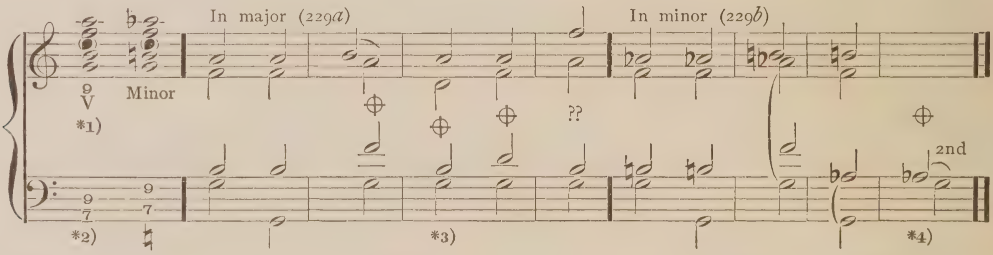
c. The chord-fifth must be omitted in 4-part harmony; not the seventh, nor the third. No interval can be doubled.

229. This is the first dominant chord which differs in major and minor. In major it has a *major* ninth, in minor a *minor* ninth. Hence, a distinction is made in its treatment in the two modes as follows:

a. In **major,** the ninth should always be placed **in the uppermost part** (soprano).

b. In **minor,** on the contrary, the ninth may lie in any of the three upper parts; but, as stated above, *never less than a ninth from the root.*

Ex. 165.



*1) Spoken: "Five-nine." — *2) Always figured $^{9}_{7}$ on account of par. 228*b*. — *3) Par. 228*c*. — *4) Par. 229*b*.

Introduction and resolution of the $\overset{9}{\text{V}}$.

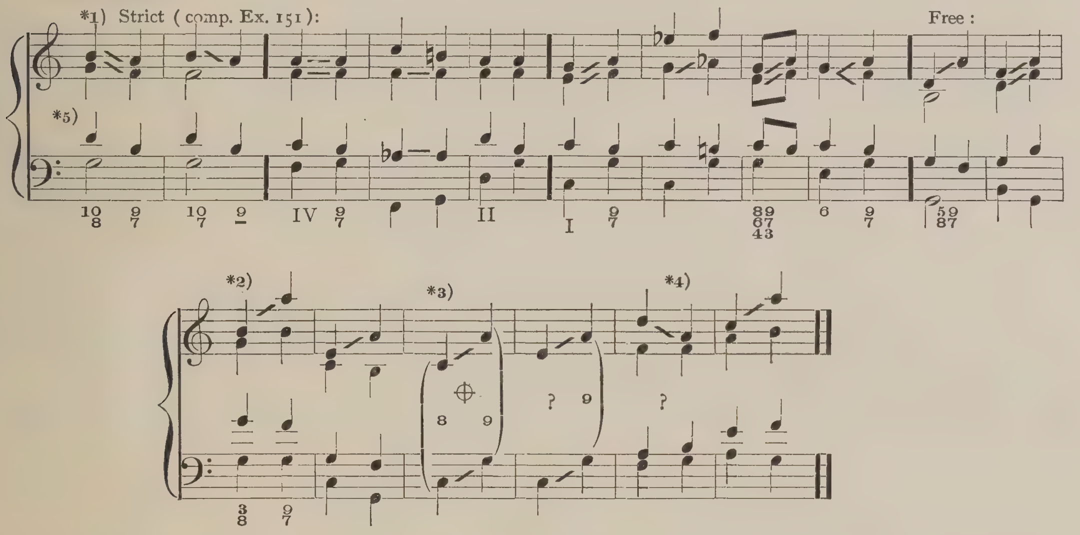
230. *a.* The introduction of the ninth is similar to that of the seventh, as shown in pars. 206, 207.

b. The ninth is resolved exactly like the seventh, **diatonically downward;** or, if a passive resolution, by *remaining stationary*, in the same part. The two dissonances (seventh and ninth) are very commonly introduced and resolved together, in the same manner; but not necessarily.

c. The **normal** resolution is effected by the I (I_2). The deceptive resolution is not possible. The **passive** resolution is effected by the IV_1 or IV_2; not by the II.

Introduction.

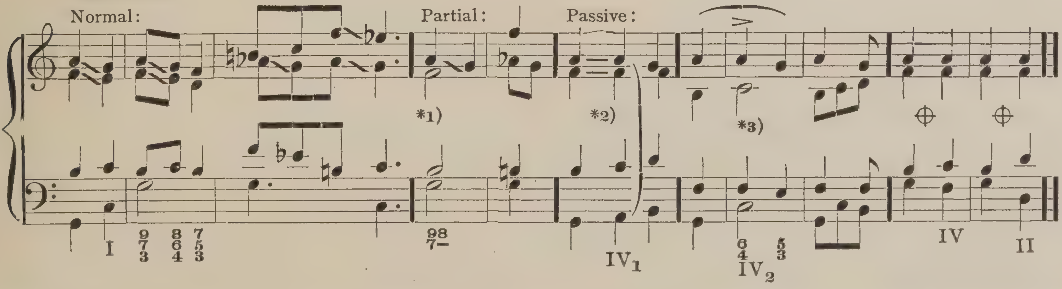
Ex. 166.



*1) When the 9th is introduced diatonically from above, the leading-tone moves contrary to its natural tendency. It is chord-repetition. — *2) A skip of a seventh is hardly possible in any other connection than in chord-repetition, as here. — *3) Unequal octaves; comp. Ex. 151, Note *4). — *4) Par. 207. — *5) The student must hereafter determine for himself which of the examples are valid for *both major and minor*. The chief obstacle, which defeats minor, is the succession of the 6th and 7th scale-steps, — as in meas. 1, 2, 16 and 17.

Resolution.

Ex. 167.



*1) The 9th is resolved alone. — *2) This duplication of the stationary 9th (*a* in soprano and bass) is excused by the smoothness of the progressions; but par. 217*d* remains valid. — *3) Similar to Ex. 133, Note *2).

231. There are a few licences in the resolution of the $\overset{9}{V}$ which are to some extent peculiar to five-tone chords, as follows:

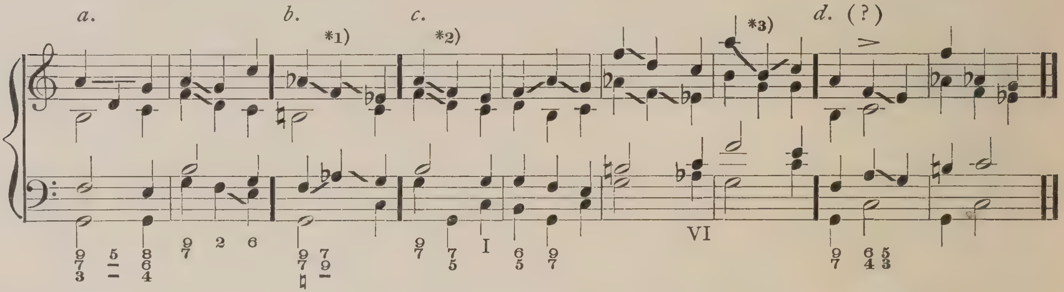
a. The ordinary *deferred resolution* (par. 214*a*), and the *transferred dissonance* (par. 214*b*).

b. The *exchange of dissonances.*

c. When one dissonance progresses to another, or, in general, *when any active tone progresses to another active tone, it evades its own resolution, the progression of the last active tone sufficing for both.* It is necessary that the *first* active tone moves in the proper direction, unless it is chord-repetition.

d. Similarly, an exchange is sometimes made during the passive resolution.

Ex. 168.



*1) The exchange of the 9th and 7th is possible only in *minor*, for the reason given in par. 229*a*. See also par. 214*c*.
*2) The 9th (*a*) is merged in the 7th, and the resolution of the latter suffices for both. — *3) The 9th is merged in the *lower* leading-tone and evades its ordinary resolution. The progression *upward* into the leading-tone would, however, be very irregular. It is possible, but demands a different analysis.

In all of these cases excepting the passive resolution the discord is *merely repeated in another form* (par. 212).

FUNDAMENTAL PRINCIPLES.

The chord-ninth must always be at least 9 tones above the root.

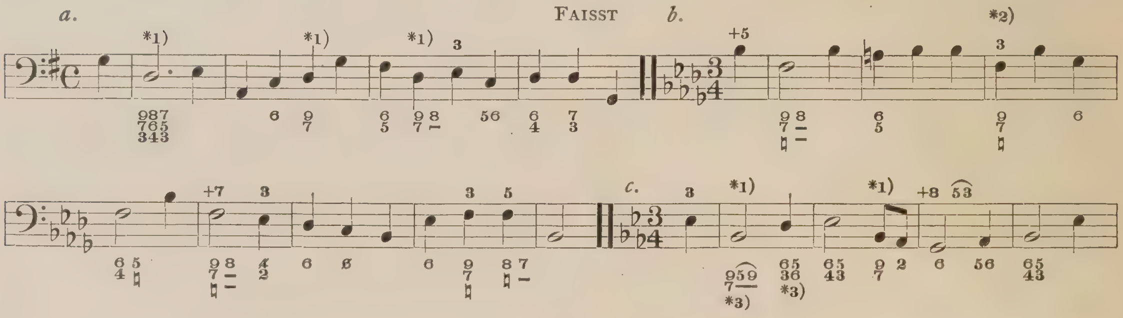
The ninth never appears without its seventh.

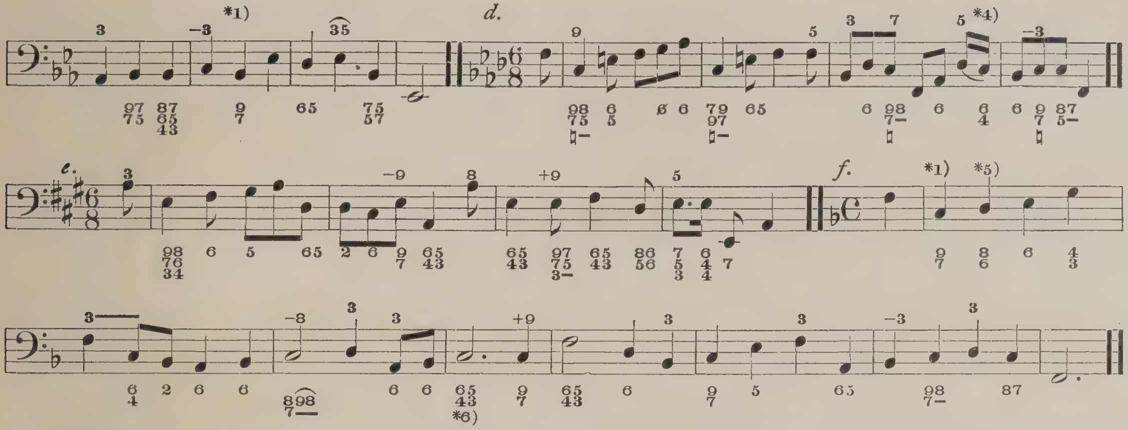
In *major*, the ninth of the dominant chord must be in *soprano*.

The ninth is introduced and resolved exactly like the seventh.

When one dissonance progresses to another dissonance, or to another sufficiently active tone, the resolution of the latter suffices for both.

EXERCISE THIRTY-THREE.





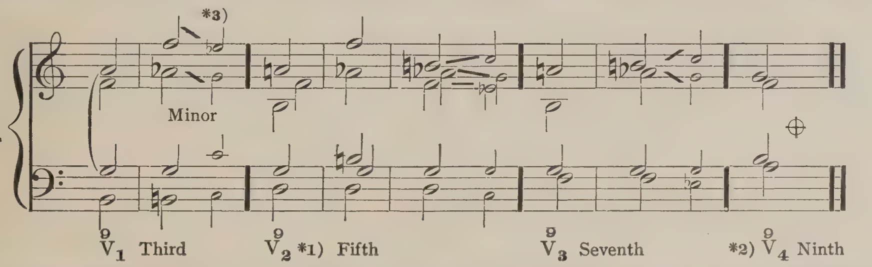
*1) Par. 229*a*. — *2) Par. 229*b*. — *3) As usual, the arrangement of the figures indicates the course of the upper parts. — *4) Ex. 140. — *5) Passive resolution. — *6) Rhythm 𝅗𝅥 ♩ —.

To this exercise, add a number of **Original phrases.**

THE COMPLETE INVERSIONS OF THE FIVE-NINE.

232. It is obviously impossible to invert the *interval* of a 9th, because it exceeds an octave (par. 42). But, as the inversion of a chord merely affects the *bass part*, it follows that complete inversions of the *chord* of the dom.-9th may be obtained, in the usual manner. But they are peculiar and difficult to handle, on account of the inconvenient 9-tone interval, which can neither be inverted nor contracted (par. 228*b*). The following example exhibits the possible forms:

Ex. 169.



*1) The 2nd inversion can be employed only in five-part harmony, as the 5th (the only omissible interval) lies in the bass itself. — *2) The 4th inversion, involving an inversion of the nine-tone interval, is an absurdity. — *3) The resolution of these chords corresponds to that of the Five-nine itself.

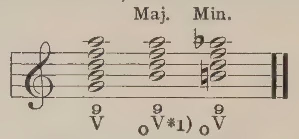
D. THE INCOMPLETE CHORD OF THE DOMINANT-NINTH,
or, the chord of the seventh upon the leading-tone.

233. It need not be inferred from the above paragraph that the chord of the dominant-ninth is available only in its fundamental shape. On the contrary, that is the very form in which it is most rarely used, because it is too bulky, and subject to too many restrictions. This is the case with every chord of the ninth; hence the rule:

a. Five-tone chords should, in general, not be used in four-part harmony *in their complete form*, but must be made *incomplete*, by omitting the root. (Review par. 219*a*, *b*).

b. The only exception is the $\overset{9}{\text{V}}$, which, by virtue of its superiority *as First-class chord, is occasionally used complete,* — as seen in the preceding exercise.

234. The incomplete Five-nine is the chord of the seventh on the leading-tone (comp. 220*a*) with its inversions; and it differs in major and minor, like the Five-nine itself (229):

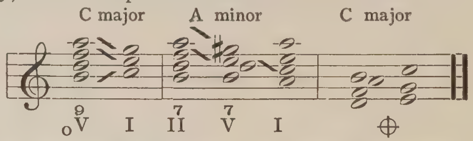


*1) Spoken: "Five-nine, incomplete," and figured as usual, 7, $\frac{6}{5}$, $\frac{4}{3}$, and 2. See Ex. 159, Notes.

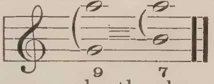
THE $_0\overset{9}{V}$ IN THE MAJOR MODE.

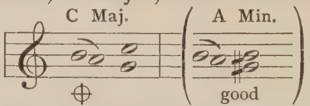
235. The chord of the seventh on the leading-tone is called, *in major*, the "Ambiguous seventh," because it is more suggestive of the relative minor key than of its own major key, and unless carefully handled, with strict regard to the conditions of its key, it causes disagreeable confusion of scales.

This is because it is a genuine chord of the 7th, with every indication that the lowest tone is its actual root. But as it cannot be a root if it is the *leading-tone* (par. 51), the ear assumes this lowest tone to be *some other scale-step*, and therefore in some other key, — namely, the 2nd step of the relative minor. Thus:



In order to hold this chord in its major key (where it is a *chord of the ninth*), and counteract its tendency towards the relative minor (in which it is a *chord of the seventh*), it must be treated like the original "ninth," and not like an ordinary "seventh." The rules are as follows:

236. *a.* The 7-tone interval from the leading-tone to the ninth represents the original 9-tone interval, thus:  therefore this interval, **in major,** should not be inverted (as second). In other words, the dom.-ninth, in major, must never lie below the leading-tone, thus:



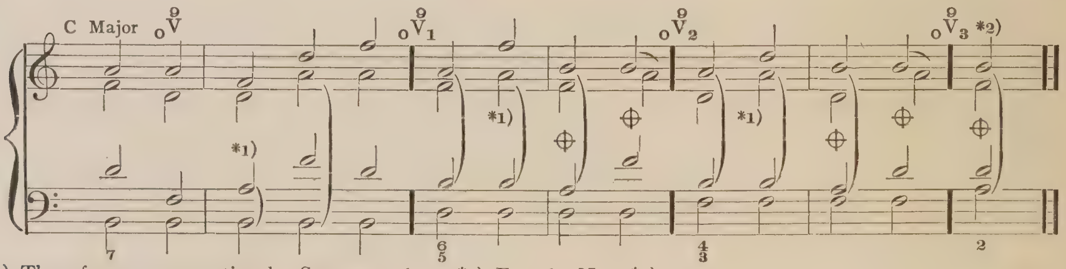
b. The most effectual mode of avoiding this error is, *to place the ninth in the soprano* (par. 229*a*).

c. The major ninth may, it is true, also lie in an inner part; but only when the leading-tone is in some *still lower* part, and when the 9th is introduced strictly.

d. No interval can be *omitted* in these incomplete chords, and consequently none can be *doubled*.

The following table illustrates the manner in which the Incomplete dom.-ninth and its inversions may be erected in major.

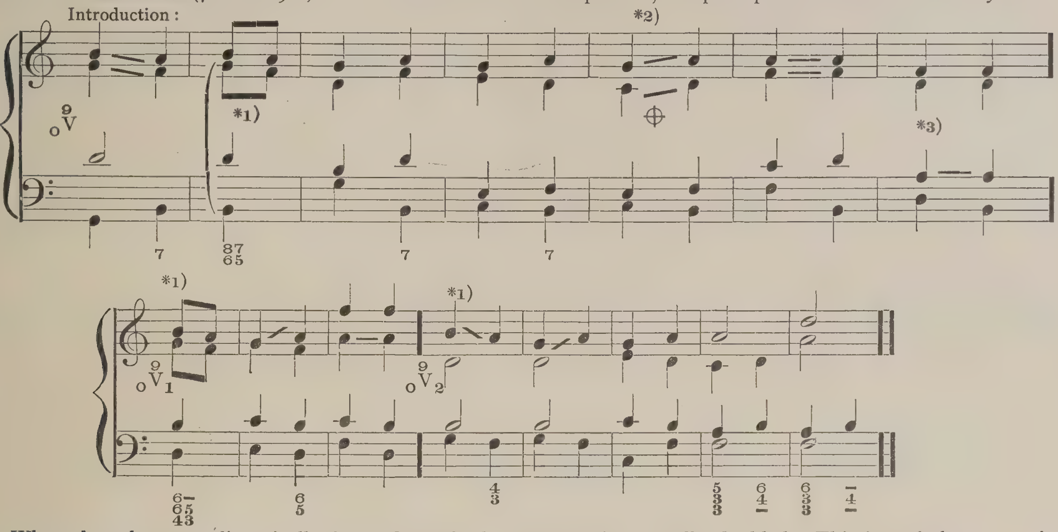
Ex. 170.



*1) These forms are exceptional. See par. 236*c*. — *2) Ex. 169, Note *2).

237. The dissonances (7th and 9th) are introduced as in the complete $\overset{9}{V}$, but perhaps somewhat more strictly.

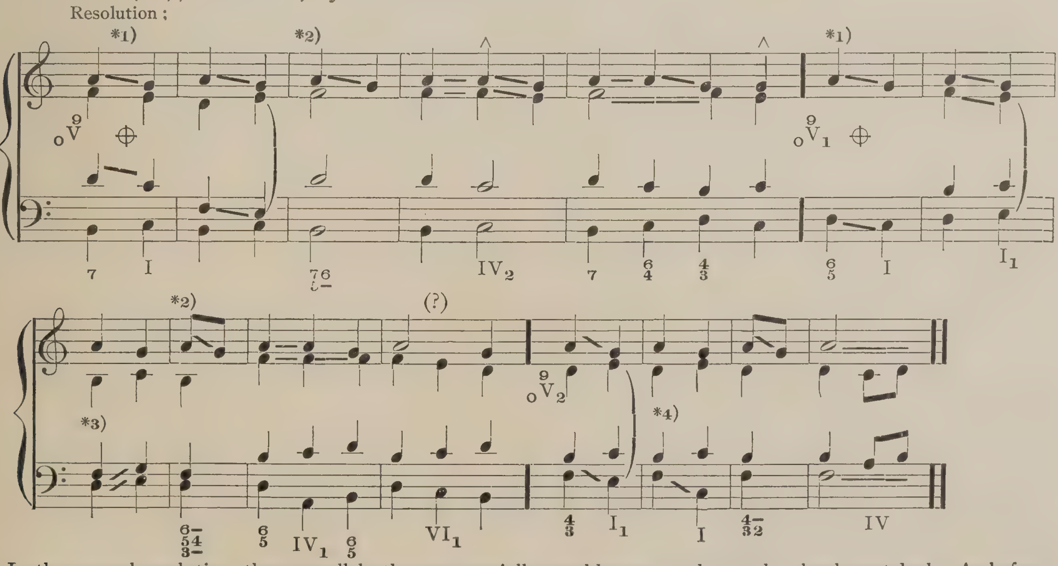
Ex. 171. Major.


Introduction:
$_{o}\overset{9}{V}$
*1)
*2)
*3)
7
87 65
7
7
*1)
$_{o}\overset{9}{V}_1$
*1)
$_{o}\overset{9}{V}_2$
6– 65 43
6 5
4 3
5 3 3
6 4 –
6 3 3
– 4 –

*1) When the 9th enters diatonically from *above*, the leading-tone is generally doubled. This is entirely correct in this connection, as it is simply a smooth preparation for the interval 7, — like Ex. 151, meas. 1, 2. — *2) These parallel 5ths are particularly apt to occur. They are best avoided by *doubling the third of the I*, as seen in the preceding measure. — *3) Par. 236*c*.

238. The resolutions, also, coincide with those of the complete $\overset{9}{V}$, *i.e.*, **normal,** into the I, I_1; **passive,** into the IV (VI); **deferred,** by other forms of dominant discords.

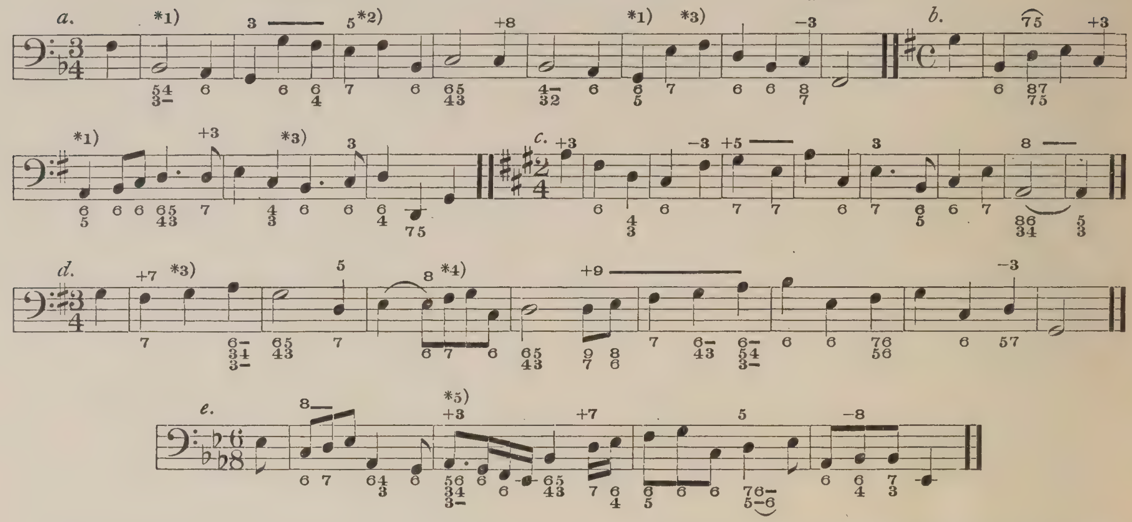
Ex. 172. Major.


Resolution;
*1)
*2)
^
^
*1)
$_{o}\overset{9}{V}$
$_{o}\overset{9}{V}_1$
7
I
76
IV2
7
6 4
4 3
6 5
I
I1
*2)
(?)
*3)
$_{o}\overset{9}{V}_2$
*4)
6– 54 3–
6 5
IV1
6 5
VI1
4 3
I1
I
4– 32
IV

*1) In the normal resolution, these parallel 5ths are especially troublesome, and must be closely watched. As before, they are generally avoided by doubling the 3rd of the I, as in the next measure. — *2) Comp. Ex. 167, measures 4 and 5. — *3) Comp. par. 218*a*. — *4) Comp. Ex. 160, Note *7).

EXERCISE THIRTY-FOUR.

Faisst



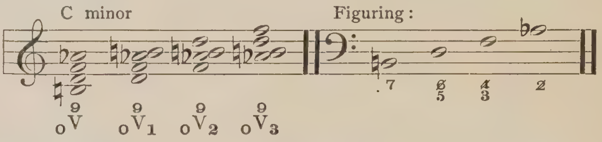
*1) Par. 236*b*. — *2) The positions are reckoned as in ordinary chords of the 7th, without regard to the actual (omitted) root. — *3) Ex. 172, Note *1). — *4) Par. 236*c*. — *5) Rhythm ♫ —.

Add a number of **Original phrases.**

THE ${}_{0}\overset{9}{V}$ IN THE MINOR MODE.

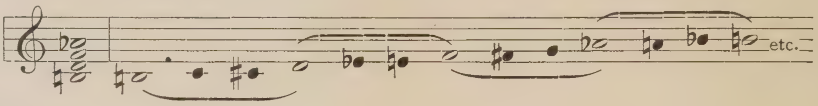
239. *a.* The chord of the seventh upon the leading-tone *in minor* is called the **chord of the diminished 7th,** because it contains that peculiar interval (in C minor, *b♮–a♭*).

Ex. 173.


C minor
Figuring:
${}_{0}\overset{9}{V}$
${}_{0}\overset{9}{V}_{1}$
${}_{0}\overset{9}{V}_{2}$
${}_{0}\overset{9}{V}_{3}$

b. One of its most significant features is, that the contiguous intervals are all of the same size (at least, on the pianoforte), namely, *three half-steps.* Thus:

Ex. 174.



c. Consequently:

All the forms (inversions) of the chord of the dim. 7th *must sound exactly alike,* as they constitute each time a group of "three times three half-steps." (Test at the piano.) It is therefore impossible to distinguish the separate chord-intervals from each other, and the restriction of the chord-ninth to the soprano (as in major) is needless.

These chords are the most flexible in the whole harmonic system, and accommodate themselves with extraordinary ease and readiness to other chords. For this reason, and because of their great beauty, they are extremely important and useful.

d. The difference in the denomination or *actual* size of the intervals (according to the *letters*) is necessary for the identification of the chord and key. In the above example all the adjacent tones constitute minor 3rds, excepting *a*♭ – *b*♮, which is an *augmented 2nd*, representing the intervals 8 and 7, — see **Ex.** 152, Note *2), — and defining the chord-name.

240. The rules are, then, as follows:

a. The disposition of the chord-intervals in the four parts is entirely optional. The ninth may lie *in any part*, even in bass. Otherwise the treatment is about the same as in major.

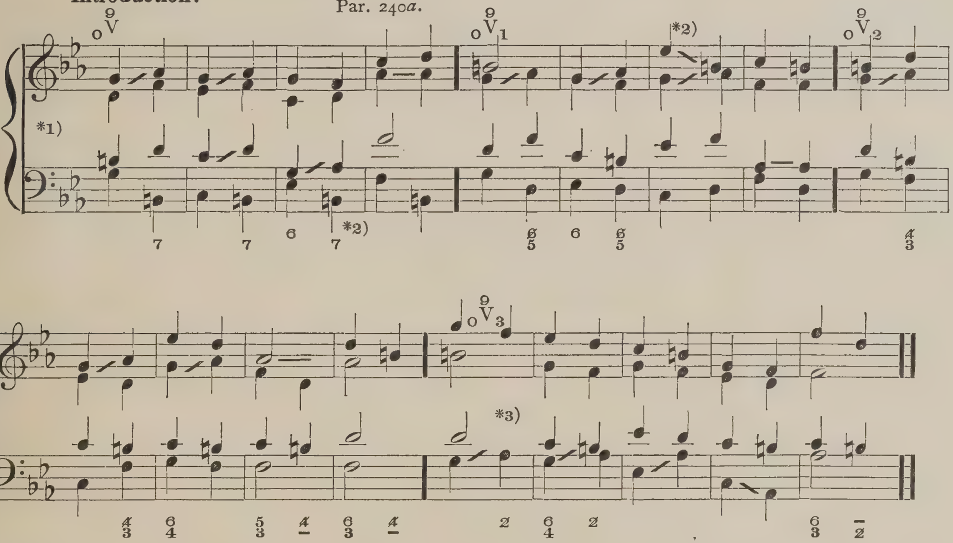
b. As in major, no interval is to be *omitted*, and none *doubled*.

c. The introduction of the ninth *diatonically from above* is impracticable, on account of the false melodic succession.

d. In the normal resolution, the parallel 5ths are not as bad as in major (Ex. 172, Note *1), because one of the 5ths is diminished. Still, it is advisable to avoid them, as in major, by doubling the third of the resolving-chord (I).

Introduction:

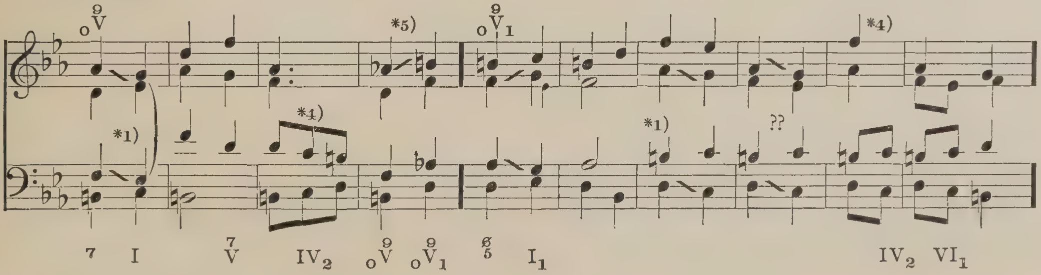
Ex. 175. Minor.

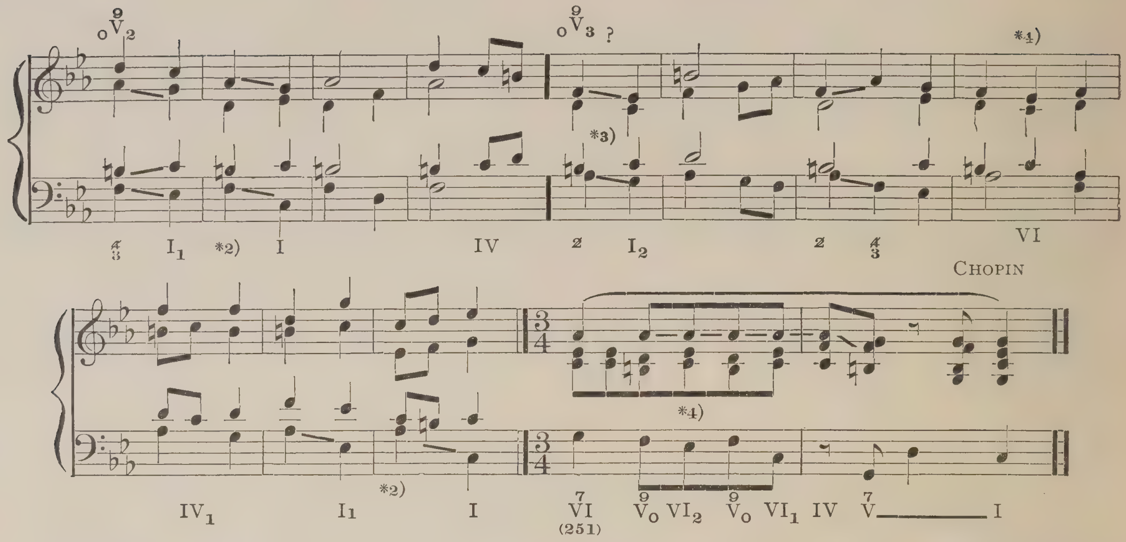

$_0\overset{9}{V}$
Par. 240*a*.
$_0\overset{9}{V}_1$
*2)
$_0\overset{9}{V}_2$
*1)
7
7
6
7
*2)
$\overset{6}{5}$
6
$\overset{6}{5}$
$\overset{4}{3}$
$_0\overset{9}{V}_3$
*3)
$\overset{4}{3}$
$\overset{6}{4}$
$\overset{5}{3}$
$\overset{4}{-}$
$\overset{6}{3}$
$\overset{4}{-}$
2
$\overset{6}{4}$
2
$\overset{6}{3}$
$\overset{-}{2}$

*1) *Review par. 75.* — *2) These skips to the leading-tone are good. Par. 31. — *3) The ninth *in bass* is correct, but rare.

Resolution:

Ex. 176. Minor.


$_0\overset{9}{V}$
*5)
$_0\overset{9}{V}_1$
*4)
*1)
*4)
*1)
??
7
I
$\overset{7}{V}$
IV_2
$_0\overset{9}{V}$
$_0\overset{9}{V}_1$
$\overset{6}{5}$
I_1
IV_2
VI_1



*1) Par. 240*d*. In measure 7 the unequal 5ths are concealed by the inner part. In meas. 8 they are in the outer parts and therefore conspicuous. — *2) These downward skips from the 7th and 9th are justified by par. 239*c*. See also Ex 160, Note *7). — *3) See Ex. 175, Note *3). The normal resolution of the bass ninth, into a 6–4 chord, is very weak. The following measures are better. — *4) Passive resolution. — *5) This irregular soprano is permissible, because it is *chord-repetition*. But the part that has the succession should be *on the way upward*. Comp. Ex. 50, Note *1).

FUNDAMENTAL PRINCIPLES.

Five-tone chords, with the single exception of the dominant-ninth, are not used *complete* in 4-part harmony, but *incomplete* (without the root).

The incomplete $\overset{9}{\mathrm{V}}$ is the chord of the 7th on the leading-tone.

The incomplete $\overset{9}{\mathrm{V}}$ in *major* suggests the relative minor key, and is possible only when the ninth lies *above* the leading-tone.

The major ninth of the dominant is best in soprano.

The incomplete $\overset{9}{\mathrm{V}}$ in *minor* is the chord of the dim. 7th, consisting of equidistant intervals; it is very useful, attractive and easy to connect.

The chord of the dim. 7th and its inversions all sound exactly alike.

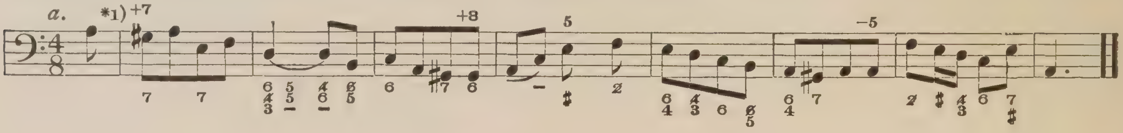
The minor 9th in bass is rare.

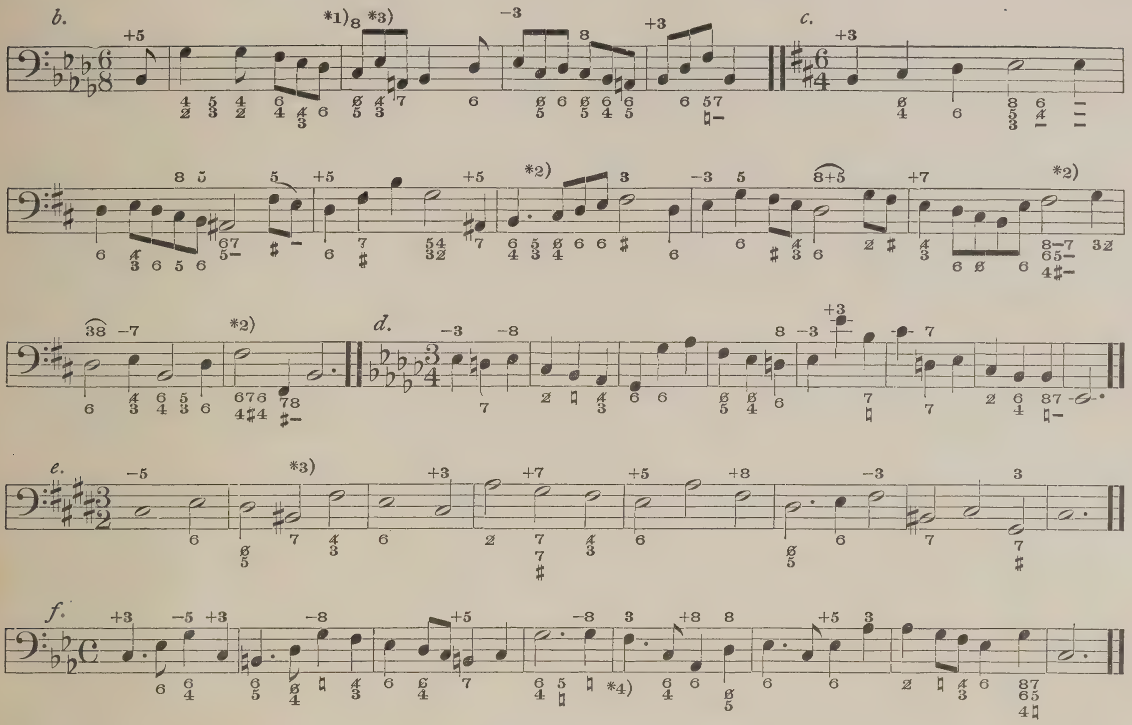
The First chord-class, or dominant element, embraces the discords $\overset{7}{\mathrm{V}}$, $\overset{9}{\mathrm{V}}$, ${}_{0}\overset{7}{\mathrm{V}}$ and ${}_{0}\overset{9}{\mathrm{V}}$, and the concords V and III.

EXERCISE THIRTY-FIVE.

These minor basses are all to be worked out *in a number of different ways* (*i.e., with different sopranos*). The given positions may be used for the first solution, but must then be ignored altogether.

a.





*1) The positions are reckoned as usual, from the lowest tone of the chord, without reference to the *actual* root. — *2) Rhythm ♩ ♫—. *3) Comp. Ex. 176, measure 4. — *4) Comp. Ex. 90, Note *2).

To this exercise add a large number of **Original phrases.**

MELODY–HARMONIZING. DOMINANT-NINTH.

241. The **five-nine,** as stated, should be used almost altogether in its *incomplete* form; and a distinction must be made as usual between its application in *major* and *minor*.

a. In **major,** it can only be used, safely, in harmonizing the *6th scale-step*, when it *descends*. This places the ninth in soprano, and ensures the admissibility of any legitimate inversion (Ex. 170).

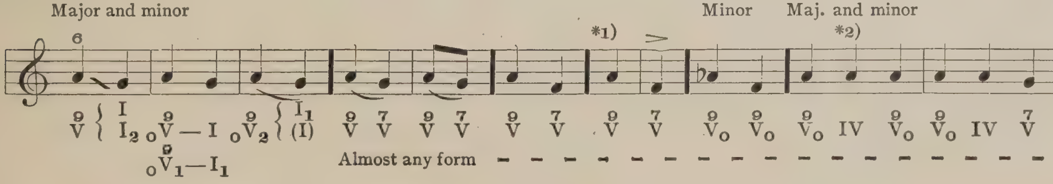
b. In **minor,** the $\overset{9}{\mathrm{V}}$ (generally incomplete) may be used:

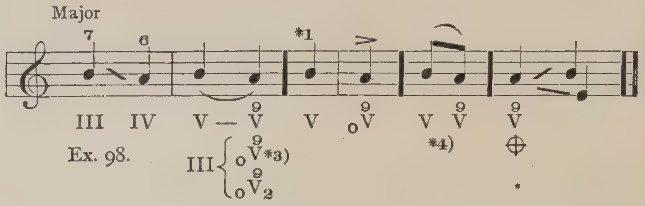
1st, and in general, *wherever the* $\overset{7}{\mathrm{V}}$ *and its inversions are possible.*

2nd, and in particular, as in major, in harmonizing the *6th scale-step* (descending).

For illustration:

Ex. 177.




Major
7
6
*1
III IV V — $\overset{9}{V}$ V $_0\overset{9}{V}$ V $\overset{9}{V}$ $\overset{9}{V}$
*4)
⊕
III { $_0\overset{9}{V}$*3)
$_0\overset{9}{V}_2$

Ex. 98.

*1) Par. 166. — *2) Passive resolution; a little troublesome in minor. — *3) Possible, but weak. — *4) Likely to be one bass tone, as in Ex. 171, meas. 2.

GENERAL PRINCIPLES.

242. The following general principles and directions should always be borne in mind, in determining the harmonic basis of a melody:

(1) **Always look forward.** Never define the chord of any melody-note without considering its relations to, and possible influence upon, the *following* tone or tones.

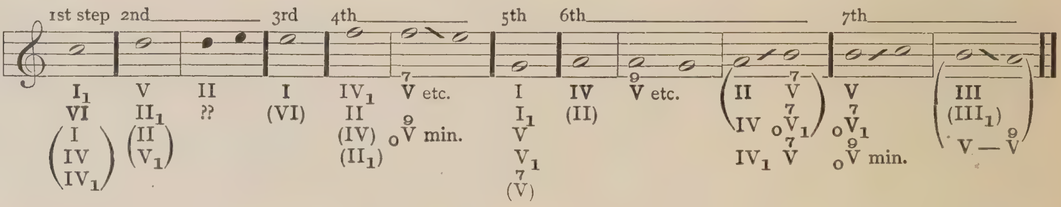
(2) The attention should be directed chiefly to the **accented** beats. The unaccented notes are of less importance, and must accommodate themselves to the chords which the accented beats require.

(3) Mark, at the outset, all those scale-steps which can be relied upon with reasonable certainty, throughout the phrase. Namely: the very first chord (I); the semi-cadence (generally V, or $\overset{\frown}{I_2\text{–}V}$) and the perfect cadence (V–I, or $\overset{7}{V}$–I, or I_2–$\overset{7}{V}$–I); the 3rd step (I); the 7th step (V, etc.); and the 6th step (IV, or $\overset{9}{V}_0$).

(4) *After doing this*, sing (or play) the melody through once or twice in correct time and rhythm, and endeavor to discern its harmonic basis by instinct (by "ear"), applying slurs where successive tones (of the same beat or accent) evidently or *probably* belong to the same chord.

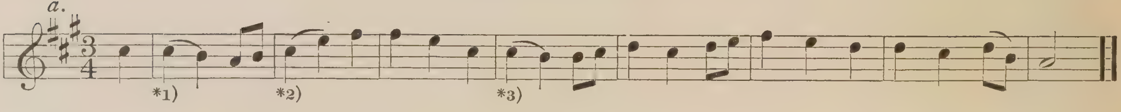
243. The following table, in which the *most natural and probable* harmonic basis of each scale-step is again shown, as summary of the foregoing rules, should be thoroughly memorized:

Ex. 178.

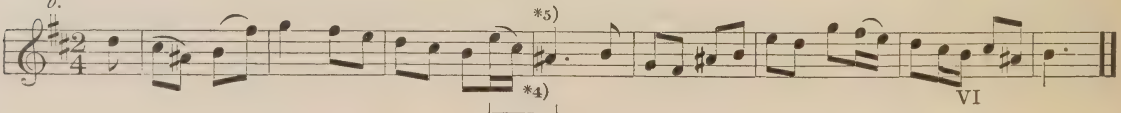

1st step
2nd
3rd
4th
5th
6th
7th
I_1 VI (I IV IV_1)
V II_1 (II V_1)
II ??
I (VI)
IV_1 II (IV) (II_1)
$\overset{7}{V}$ etc. $_0\overset{9}{V}$ min.
I I_1 V V_1 ($\overset{7}{V}$)
IV (II)
$\overset{9}{V}$ etc.
(II $\overset{7}{V}$ IV $_0\overset{7}{V}_1$) IV_1 $\overset{7}{V}$
V $_0\overset{7}{V}_1$ $_0\overset{9}{V}$ min.
III (III_1) V — $\overset{9}{V}$

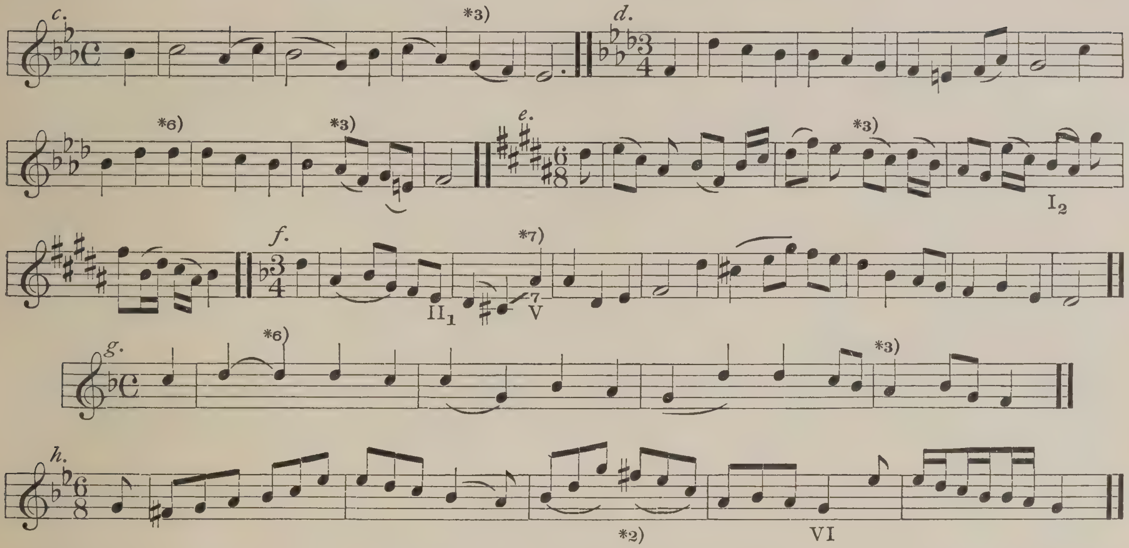
EXERCISE THIRTY-SIX.

a.



b.





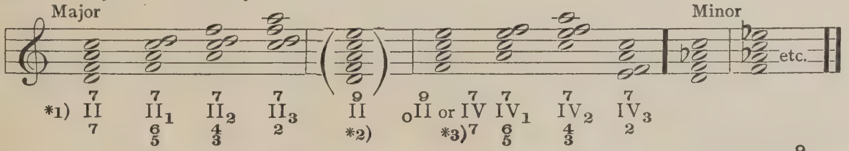
*1) Ex. 144. — *2) Par. 168. — *3) Par. 193. — *4) Change the chord at this bar. — *5) Exercise 32, Note *11). — *6) Passive resolution. — *7) When the leading-tone (in the melody) *leaps*, as here, it is evident that the dominant chord must be repeated.

N.B. — The student may extend this exercise by *reharmonizing all of the melodies given* up to this point, with the material of this lesson. This he is warmly urged to do, as nothing is more important than facility in harmonizing melodies, and nothing makes perfect but *practice.*

SECTION 2. THE DISCORDS OF THE SECOND CLASS.

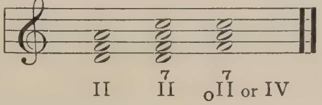
244. The fundamental tone of this class is the second perfect 5th above the tonic, or, the **second step** of the scale. Review par. 198. Therefore, the 2nd class embraces the chord of the 7th on the second step, the chord of the 9th on the second step, and the chord of the 7th on the fourth step, as incomplete chord of the 9th, — in major and minor.

Ex. 179.



*1) Spoken: "Two-seven," "Two-seven-one," etc., and figured as usual, 7, $\genfrac{}{}{0pt}{}{6}{5}$, $\genfrac{}{}{0pt}{}{4}{3}$, 2. — *2) The $\overset{9}{\text{II}}$ is available in 4-part harmony only without its root, as $\overset{7}{\text{IV}}$ (see par. 233*a*, *b*). — *3) Called "Four-seven" instead of "Two-nine, incomplete," on account of its relation to the *triad* IV.

245. To this class belong also, as concords, the fundamental 3-tone chord II, and its parallel, the IV, *which is actually an incomplete two-seven,* — in analogy with par. 221.



Compare par. 110*a;* and see par. 259.

A. THE $\overset{7}{\text{II}}$ AND ITS INVERSIONS.

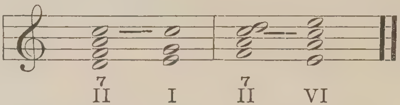
246. *a.* These chords are not quite as common as those of the First class, but they are barely less important, especially in modern harmony. They are treated, *relatively speaking*, almost exactly like the dominant chords, only a little more strictly. The principal external distinction is, that the $\overset{7}{\text{II}}$ has a **minor third,** while that of the $\overset{7}{\text{V}}$ is *major*. Moreover, the Second-class chords do not contain the leading-tone (as those of the First class do), but the 4th and 6th steps of the scale (see par. 112).

b. The chord-seventh is resolved *diatonically downward*, or *remains stationary* (passive res.), and is not doubled. In the $\overset{7}{\text{II}}$ itself, as *fundamental* chord, the fifth may be left out; but in the inversions no omissions are possible.

c. The **normal** resolution is effected, as usual, by the chords which lie a perfect 5th below, namely, those of the **First class** (dominant).

This fundamental rule operates in its most comprehensive sense. Every 2nd-class chord is normally resolved into *any* and *every* 1st-class chord, concord or discord. The same is true of all the discord classes, each of which obtains its normal res. by progressing into the *preceding* class; the 2nd into the 1st, the 3rd into the 2nd, and the 4th into the 3rd. See par. 259.

d. The **passive** resolution, for which this discord-class evinces a decided preference, is effected by the tonic chords (I or VI), which contain its dissonance as consonant interval:

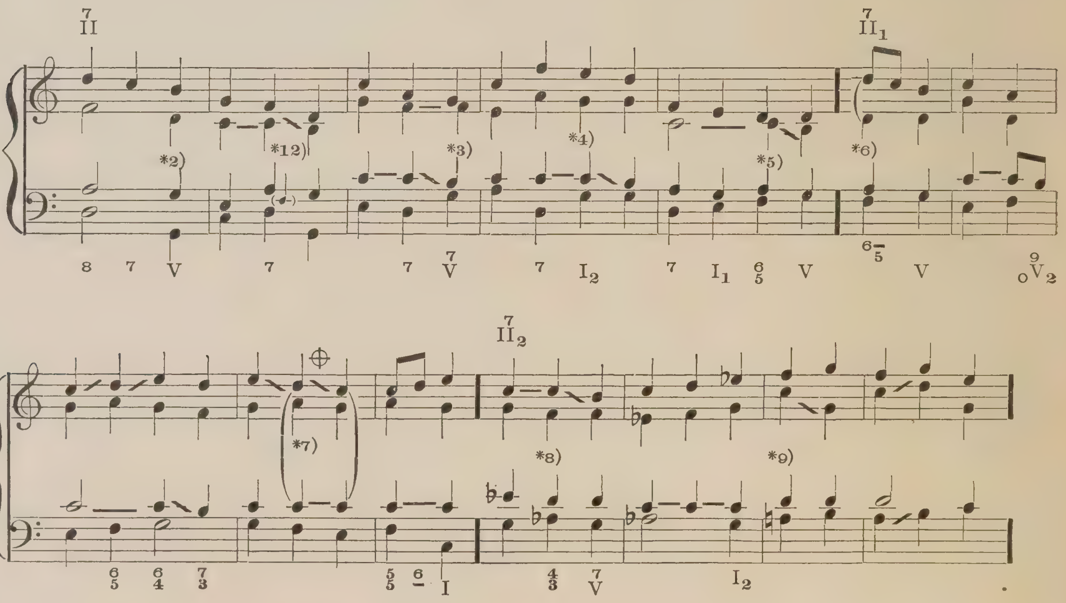


$\overset{7}{\text{II}}$
I
$\overset{7}{\text{II}}$
VI

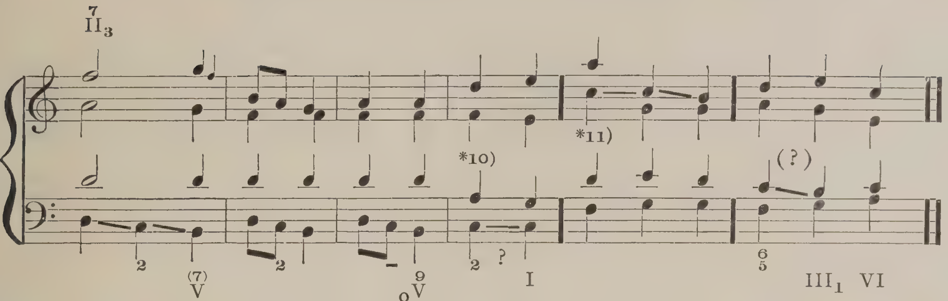
(Comp. par. 216.)

e. The seventh should be introduced strictly, as a rule; rarely with a skip, or diatonically from below.

Ex. 180. *1)



$\overset{7}{\text{II}}$
*2)
*12)
*3)
*4)
*5)
$\overset{7}{\text{II}}_1$
*6)
8 7 V
7
7 $\overset{7}{\text{V}}$
7 I_2
7 I_1 $^6_5$ V
$^6_5$ V
$_\text{o}\overset{9}{\text{V}}_2$
*7)
$\overset{7}{\text{II}}_2$
*8)
*9)
$^6_5$ $^6_4$ $^7_3$
$^5_5$ $^6_-$ I
$^4_3$ $\overset{7}{\text{V}}$
I_2


$\overset{7}{\text{II}}_3$
*10)
*11)
(?)
2
(7) V
2
9 oV
2 ?
I
6 5
III_1 VI

*1) Major and minor. Separate measures, as usual. — *2) Normal res. — *3) This is the first case of different _discords in succession._ The resolution into the dominant 7th or 9th is better for the key, than into the triad. — *4) Passive res. — *5) After the pass. res. it is best to return to the same chord-class, as here. Compare par. 217_a_. — *6) Ex. 153, Note *1). — *7) In the pass. res. no other part should run into the seventh. Here the soprano is wrong; the preceding measure is right. Comp. Ex. 157, Note *4). — *8) The 2nd inversion is the weakest form, naturally; it is better (stronger) in minor. — *9) When the bass progresses upward into the leading-tone, the seventh (being the _keynote itself_) may skip downward to the dominant, or move parallel with the bass in 3rds, as in the next measure. (See par. 218_a_.) — *10) The pass. res. of the seventh in _bass_ is very doubtful. — *11) These last two measures are exceptional. — *12) In the $\overset{7}{\text{II}}$ _itself_ the fifth may be omitted.

B. The $\overset{7}{\text{IV}}$ and its Inversions.

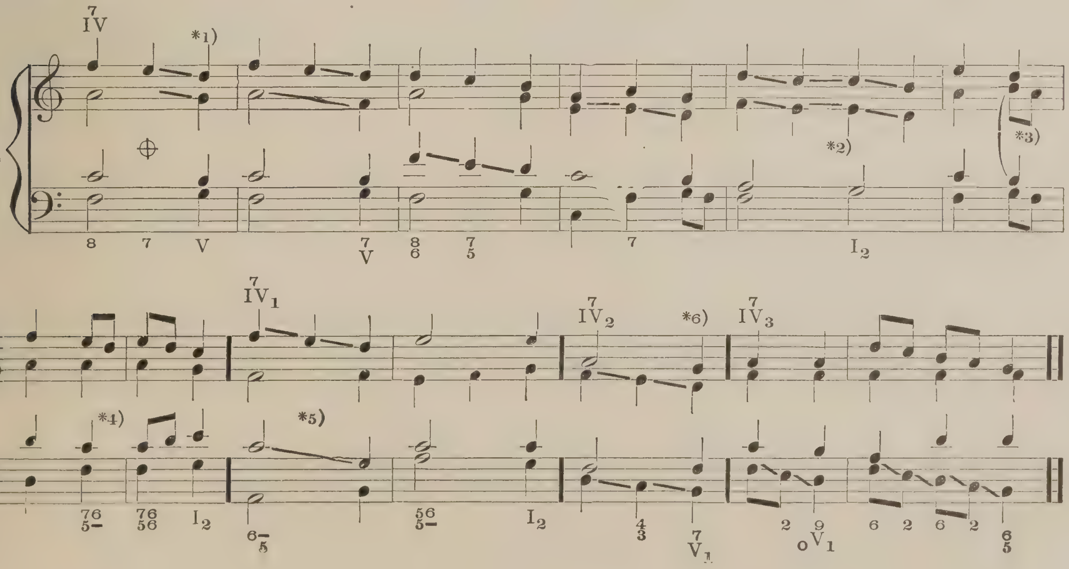
247. _a._ The assignment of this chord to the Second discord-class, instead of assuming that it forms an independent class on account of the principal tone upon which it stands (the subdominant), is justified by all of its harmonic movements, by its sound, and by analogy with the development and arrangement of the First discord-class.

_b._ The dissonances (7th and 9th, — _5th and 7th in this form_) are treated like those of the dominant. The introduction is _perfectly strict._

_c._ No interval can be omitted, and none doubled (par. 236_d_).

_d._ The chord is the same in character in major and minor. The ninth may lie in _any_ part.

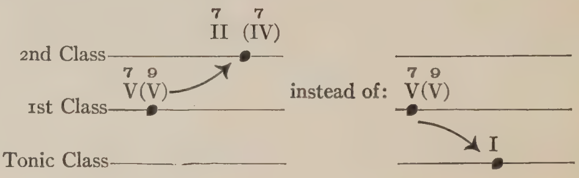
Ex. 181.


$\overset{7}{\text{IV}}$
*1)
*2)
*3)
8 7 V
7 V
8 6
7 5
7
I_2
$\overset{7}{\text{IV}}_1$
*4)
*5)
76 5–
76 56
I_2
6– 5
56 5–
I_2
$\overset{7}{\text{IV}}_2$
*6)
$\overset{7}{\text{IV}}_3$
4 3
7 V_1
2 9 oV_1
6 2 6 2
6 5

*1) These parallel 5ths are even more likely to occur than in the analogous resolution of the ${}_{0}\overset{9}{\text{V}}$, — Ex. 172, Note *1); they are best avoided by progressing into the *discords* $\overset{7}{\text{V}}$ or ${}_{0}\overset{9}{\text{V}}$. — *2) Passive res. — *3) Ex. 171, Note *1). — *4) Partial res. See Ex. 167, meas. 4, 5. — *5) The treatment of a 7th is less strict, when accompanied by the ninth. See Ex. 180, Note *9). — *6) The 2nd and 3rd inversions (seventh and ninth in bass) have no passive resolution. Comp. Ex. 180, Note *10).

The Digression into the next higher Class.

248. The passive resolution of the First-class discords (par. 215, 216*a*, which review), may also be made into the *discords* $\overset{7}{\text{II}}$ and $\overset{7}{\text{IV}}$, as well as into the *concords* II and IV. In this case the progression again represents the *reverse of the normal resolution*, being the *upward* instead of the *downward* direction: in the most literal sense, a "Digression" from the natural order of harmonic succession. Thus:



7 7
II (IV)
2nd Class
7 9
V(V)
1st Class
Tonic Class
instead of:
7 9
V(V)
I

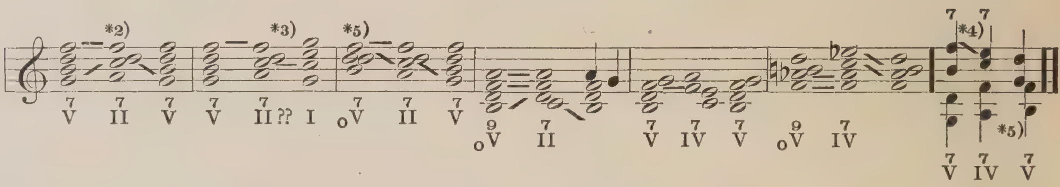
249. When First-class chords ascend in this manner into Second-class discords, the rules of the passive resolution must be strictly respected, namely:

a. The first dissonance (dom.-7th or 9th) *remains in the same part;*

b. The progressions of the parts must be smooth; and

c. After the digression, *the first chord must return,* in the same or in a different form. See par. 217*a;* 217*b* is not valid in this case.

Ex. 182. *1)

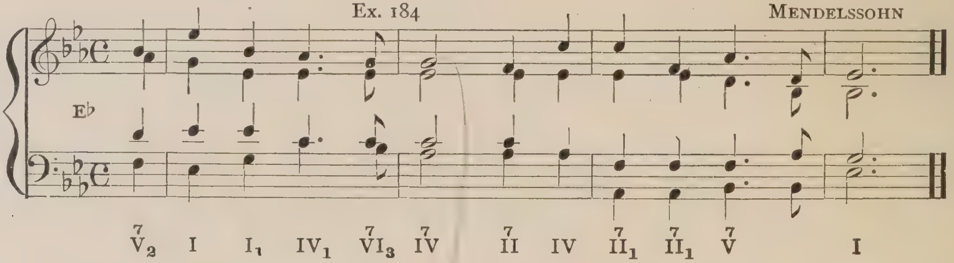


*2)
*3)
*5)
*4)
7 V
7 II
7 V
7 V
7 II ?? I
9 oV
7 II
7 V
9 oV
7 II
7 V
7 IV
7 V
9 oV
7 IV
7 7
*5)
7 V
7 IV
7 V

*1) Major and minor. — *2) The second dissonance, in this connection, usually enters from *below.* — *3) See 249*c.* Two pass. resolutions in succession are not plausible. — *4) This is unusual, but good. It corresponds to Ex. 187. — *5) Major only. — In general, par. 66 must be complied with.

Further illustrations of 2nd-class chords:

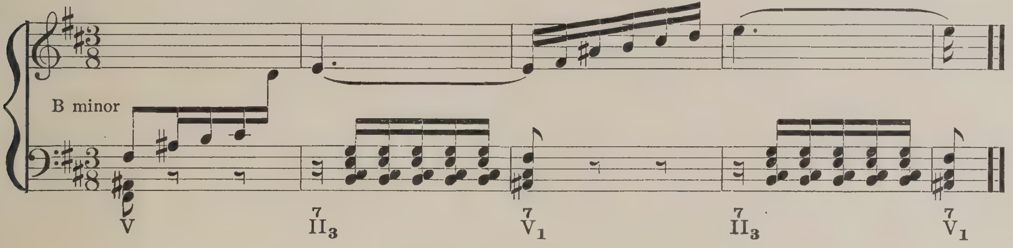
Ex. 183.



Ex. 184
E♭
$\overset{7}{\text{V}}_2$ I I_1 IV_1 $\overset{7}{\text{VI}}_3$ $\overset{7}{\text{IV}}$ $\overset{7}{\text{II}}$ IV $\overset{7}{\text{II}}_1$ $\overset{7}{\text{II}}_1$ $\overset{7}{\text{V}}$ I

Mendelssohn

MENDELSSOHN


B minor
V
$\overset{7}{\text{II}}_3$
$\overset{7}{\text{V}}_1$
$\overset{7}{\text{II}}_3$
$\overset{7}{\text{V}}_1$

FUNDAMENTAL PRINCIPLES.

The 2nd chord-class or second-dominant element embraces the discords $\overset{7}{\text{II}}$, $(\overset{9}{\text{II}})$, $\overset{7}{\text{IV}}$, and the concords II and IV.

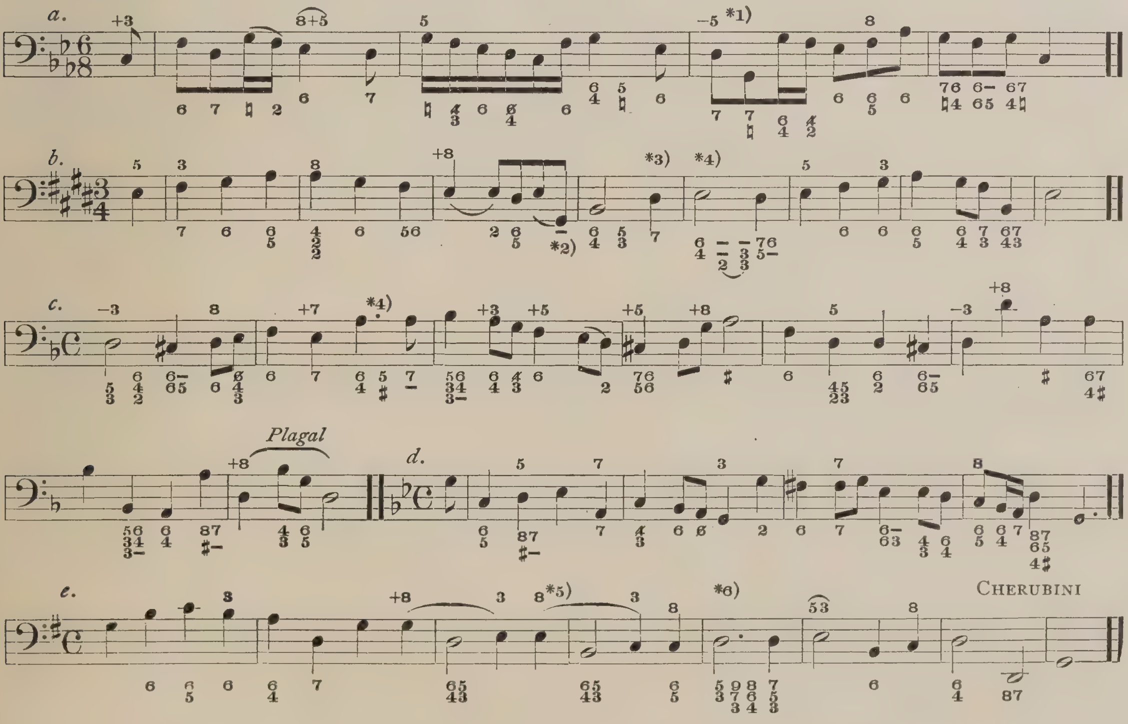
The normal resolution of each discord-class is effected by the preceding class (a perfect 5th below).

The "digression" or passive resolution is effected by the following class (a perfect 5th above).

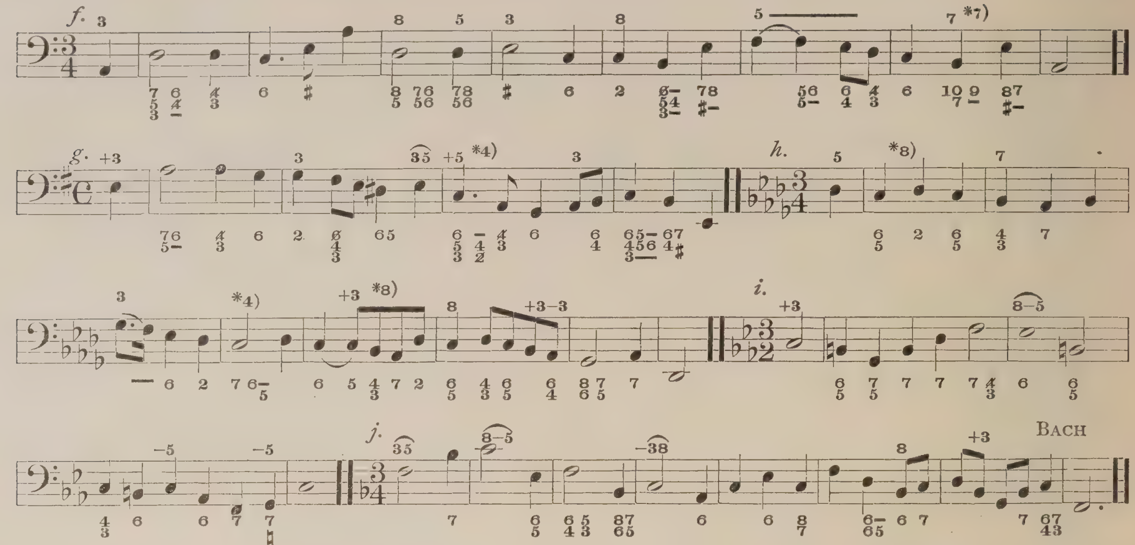
After the "digression," the first discord reappears.

EXERCISE THIRTY-SEVEN.

A. **Basses.** The given positions (upper figures) may be ignored, if desirable.


a.
*1)
b.
*2)
*3)
*4)
c.
*4)
Plagal
d.
e.
*5)
*6)

CHERUBINI



*1) Par. 106*a*. — *2) Exercise 21, Note *6). — *3) Par. 236*b*. — *4) Rhythm ♩ ♫ — . *5) See par. 116*b*. Here it is chord-repetition, and a sequence. — *6) Par. 229*a*. — *7) An exceptional *complete* Two-nine. — *8) Par. 249.

B. Play the following chord-progressions at the piano, in different major and minor keys. At first with the right hand alone, and then with both hands, the bass alone in the left.

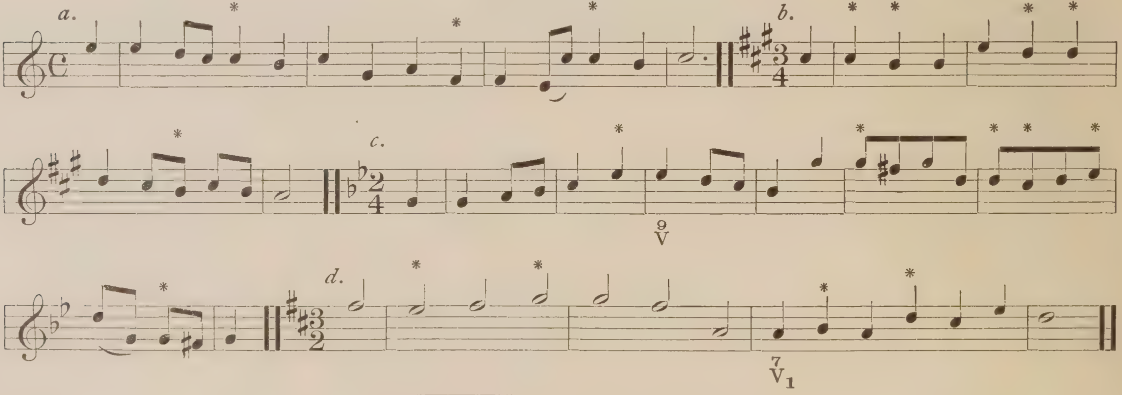
$\mathrm{I}_1-\overset{7}{\mathrm{II}}-\overset{7}{\mathrm{V}}_2-\overset{\frown}{\mathrm{I}}$ || $\mathrm{VI}-\overset{7}{\mathrm{II}}_1-\mathrm{V}-\overset{\frown}{\mathrm{I}}$ || $\mathrm{IV}_1-\overset{7}{\mathrm{II}}_1-\overset{7}{\mathrm{V}}_3-\overset{\frown}{\mathrm{I}}_1$ || $\overset{3}{\mathrm{I}}-\overset{7}{\mathrm{II}}_3-\overset{7}{\mathrm{V}}_1-\overset{\frown}{\mathrm{I}}$ || $\overset{8}{\mathrm{I}}-\overset{7}{\mathrm{II}}_3-{}_0\overset{9}{\mathrm{V}}-\overset{\frown}{\mathrm{I}}$ ||

$\overset{7}{\mathrm{II}}-\mathrm{I}_1-\overset{7}{\mathrm{II}}_1-\mathrm{I}_2-\overset{7}{\mathrm{V}}-\overset{\frown}{\mathrm{VI}}$ || $\mathrm{I}_2-\overset{7}{\mathrm{IV}}-{}_0\overset{7}{\mathrm{V}}_2-\overset{\frown}{\mathrm{I}}_1$ || $\overset{5}{\mathrm{I}}_2-\overset{7}{\mathrm{IV}}_1-{}_0\overset{7}{\mathrm{V}}-\overset{\frown}{\mathrm{I}}$ || $\mathrm{IV}-\overset{7}{\mathrm{IV}}_3-\overset{7}{\mathrm{V}}_2-\overset{\frown}{\mathrm{I}}$ ||

$\mathrm{VI}-\overset{7}{\mathrm{IV}}-\mathrm{I}_2-\mathrm{V}-\overset{\frown}{\mathrm{I}}$ || $\overset{7}{\mathrm{V}}_1-\overset{7}{\mathrm{II}}_3-\overset{7}{\mathrm{V}}_1-\overset{\overset{\frown}{3}}{\mathrm{VI}}$ || ${}_0\overset{9}{\mathrm{V}}-\overset{7}{\mathrm{IV}}_2-\overset{7}{\mathrm{V}}_1-\overset{\frown}{\mathrm{I}}$ ||

C. A number of **Original phrases.**

D. **Melodies.** The $\overset{7}{\mathrm{II}}$ or $\overset{7}{\mathrm{IV}}$, in any convenient form, at each *.



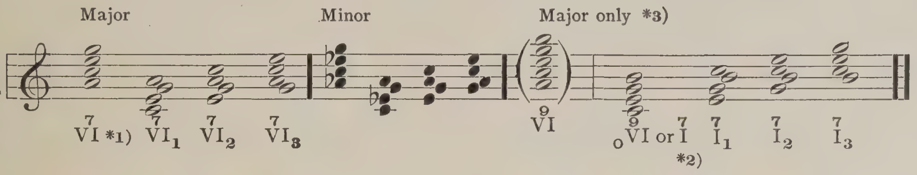
SECTION 3. THE 3RD AND 4TH DISCORD-CLASSES.

250. The discords of the 3rd and 4th classes are very rare. (See par. 198*e*.) They are hardly ever used as *essential* members of the fundamental chord-succession, but as passing chords, usually upon *fractions of beats*, or on short beats, between the more essential chords. Nevertheless, their actual existence as genuine harmonic bodies, their origin, and their comparative significance in their key are unmistakably apparent in Ex. 147, and therefore they claim a certain degree of consideration. Their possible existence *slightly* modifies par. 70.

A. The Discords of the Third class.

251. *a.* The 3rd discord-class embraces the chord of the 7th on the **sixth step** (the third perfect 5th above the tonic) in major and minor; the chord of the 9th on the **sixth step,** and the chord of the 7th upon the **first step** (as incomplete ninth) *in major only.*

Ex. 184.


Major
Minor
Major only *3)
$\overset{7}{\text{VI}}$ *1)
$\overset{7}{\text{VI}}_1$
$\overset{7}{\text{VI}}_2$
$\overset{7}{\text{VI}}_3$
$\overset{9}{\text{VI}}$
$_0\overset{9}{\text{VI}}$ or $\overset{7}{\text{I}}$
*2)
$\overset{7}{\text{I}}_1$
$\overset{7}{\text{I}}_2$
$\overset{7}{\text{I}}_3$

*1) Spoken: "Six-seven," and figured as usual. — *2) Spoken: "One-seven." — *3) These chords cannot appear in minor, because the ninth (*b*) could not be resolved diatonically downward (Ex. 70).

b. This chord-class, unlike the First and Second classes, consists exclusively of *discords*. The *concords* VI and I, which occupy the same scale-steps as the 3rd class, are the representatives of the *tonic class.*

The most important and essential quality of the tonic element is its inactivity, as basis or "centre" of its key; and when this quality is nullified by the addition of a dissonant interval, *it ceases to be a "tonic" harmony*, in the correct sense of the term, and assumes a place among the discords. Review par. 198*c*.

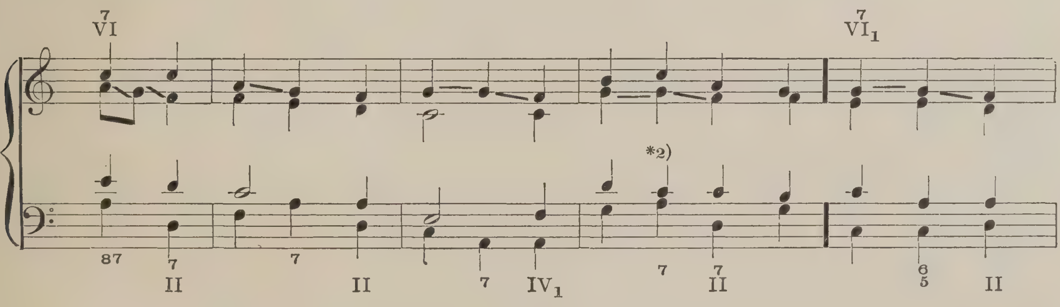
Hence, the *triads* I and VI are tonic chords because they are consonant; but as chords of the seventh ($\overset{7}{\text{VI}}$ and $\overset{7}{\text{I}}$) they become Third-class harmonies, and are subject to the laws of that class.

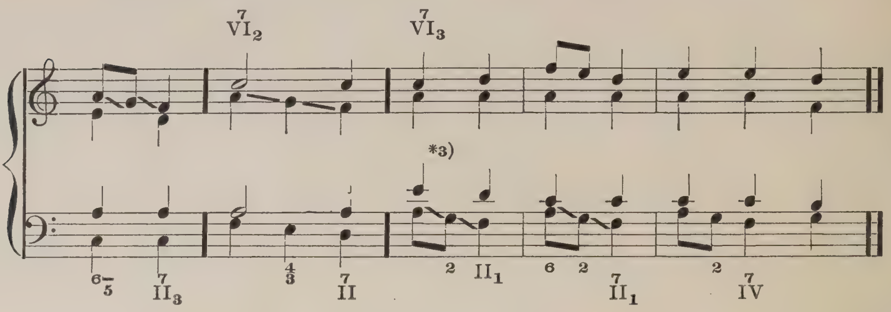
252. The rules for the treatment of these chords are as follows:

a. Seventh and ninth are resolved as usual, diatonically *downward*, and are introduced *strictly*.

b. The normal resolution is effected by the preceding class (the Second), namely, by the II, IV, $\overset{7}{\text{II}}$, $\overset{7}{\text{IV}}$. Comp. par. 246*c*.

Ex. 185. *1)

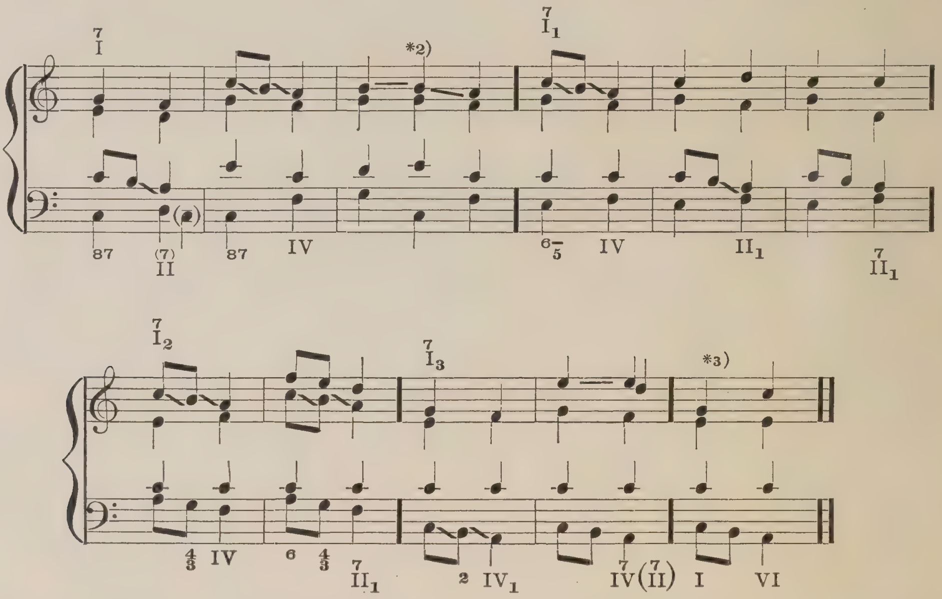

$\overset{7}{\text{VI}}$
$\overset{7}{\text{VI}}_1$
*2)
87
$\overset{7}{\text{II}}$
7
II
7
IV_1
7
$\overset{7}{\text{II}}$
6 5
II



$\overset{7}{\text{VI}}_2$
$\overset{7}{\text{VI}}_3$
*3)
6 5
$\overset{7}{\text{II}}_3$
4 3
$\overset{7}{\text{II}}$
2 II_1
6 2
$\overset{7}{\text{II}}_1$
2
$\overset{7}{\text{IV}}$

*1) Major and minor. — *2) The fifth of the $\overset{7}{\text{VI}}$ *itself* may be omitted, and the third doubled. Comp. Ex. 180, Note *12). — *3) The 3rd inversion (chord of the second) is one of the most useful forms, here as elsewhere.

Ex. 186. *1)



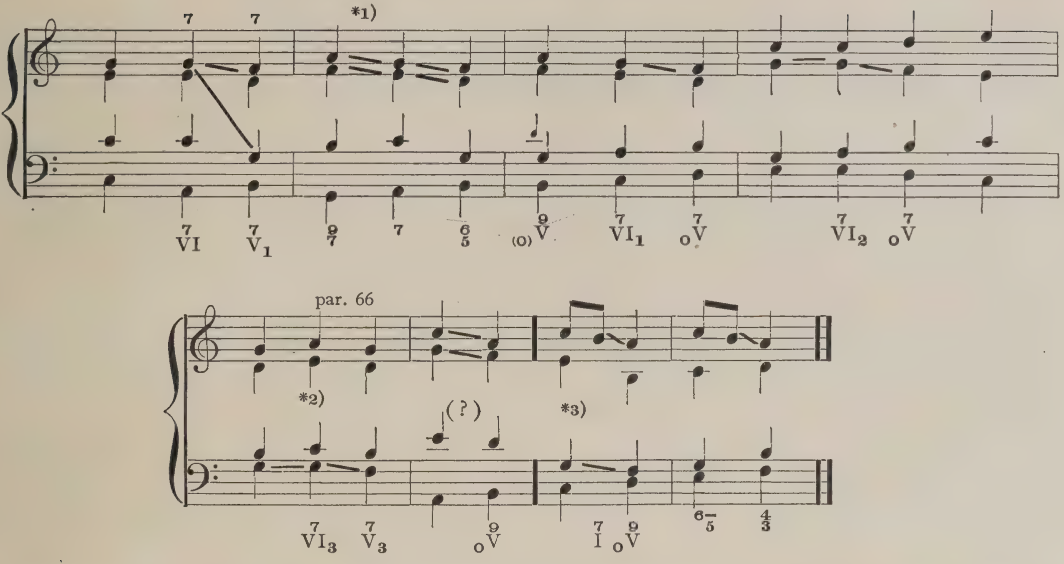
$\overset{7}{\text{I}}$
*2)
$\overset{7}{\text{I}}_1$
87
(7) II
87
IV
6 5
IV
II_1
$\overset{7}{\text{II}}_1$
$\overset{7}{\text{I}}_2$
$\overset{7}{\text{I}}_3$
*3)
4 3 IV
6 4 3
$\overset{7}{\text{II}}_1$
2 IV_1
$\overset{7}{\text{IV}}(\overset{7}{\text{II}})$
I
VI

*1) Major only. — *2) When the leading-tone becomes a chord-seventh, it must obey the law of 7ths, and move *downward.* — *3) This measure is not strictly harmonic; $\overset{7}{\text{I}}$–VI is not a genuine "resolution." It is chord-repetition, practically, and the *b* in bass is a passing-note only.

Irregular Passive resolution.

253. These chords may also progress into *dominant discords*, in which case the succession corresponds to the passive resolution, because, as in former cases ($\overset{7}{\text{V}}$–IV, $\overset{7}{\text{II}}$–I), the dissonance of the first chord becomes, by remaining, a consonant interval of the following chord. But in this case the passive resolution is made irregularly: the dissonances of the 3rd class are too weak to be held, and therefore *they resolve immediately, diatonically downward, into the dissonances of the dominant chords.* This is a very effective and important progression, and almost preferable to the regular normal resolution, as a stronger chord-class (the dominant) is quickly reached.

Ex. 187.

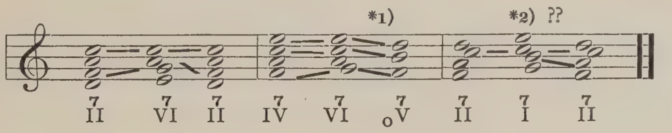


*1) See par. 66. — *2) With the exception of this measure, the whole example is possible only in major, because the 6th step usually ascends. — *3) When the $\overset{7}{\text{I}}$ is so brief, it is only a passing chord. Comp. Ex. 186, Note *3)

---

254. The "digression" from the 2nd class into the 3rd (comp. par. 248) is made as follows:

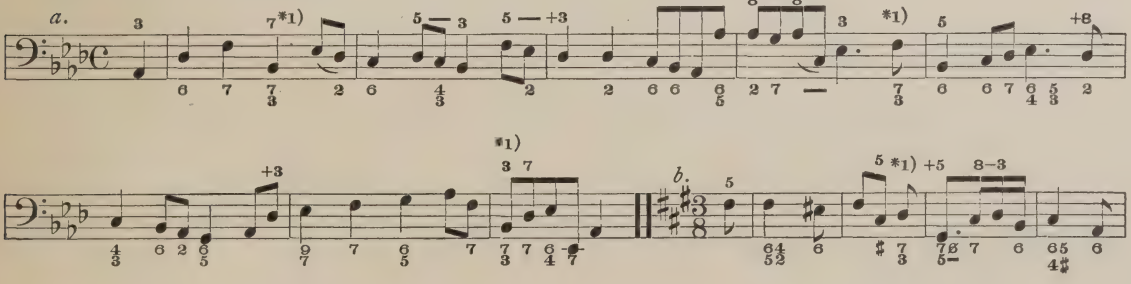
Ex. 188.

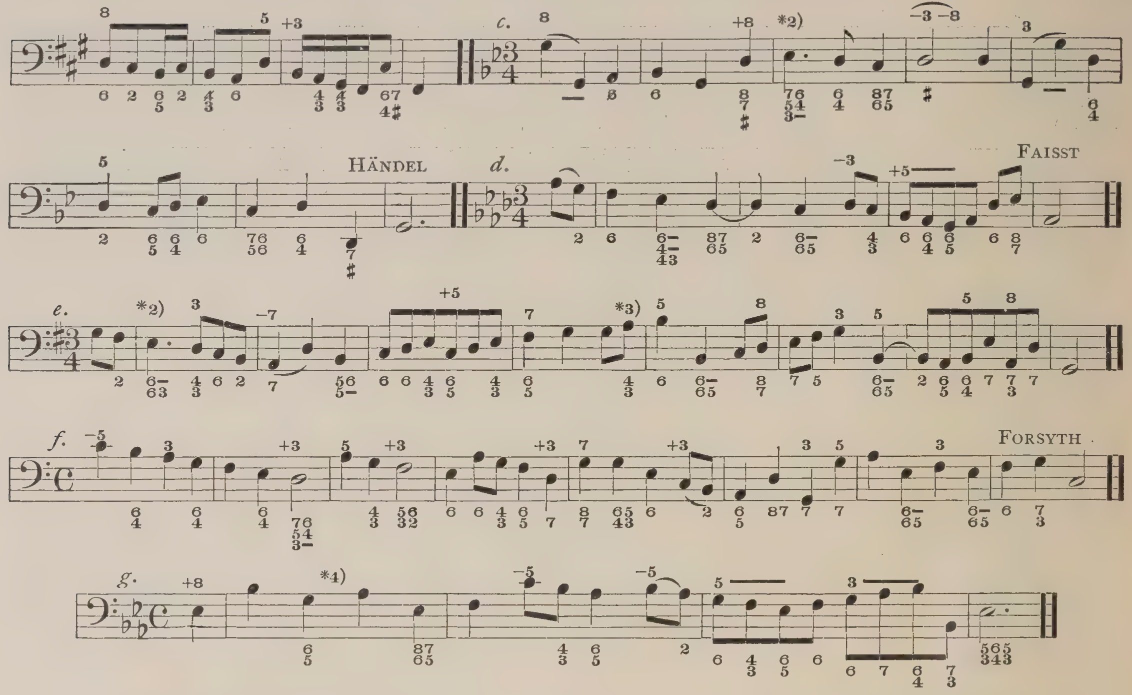


*1) The progression of the $\overset{7}{\text{VI}}$ into the $_0\overset{7}{\text{V}}$ after the digression, although contrary to par. 249*c*, is allowed, because the seventh *g* is *actually resolved* into *f*. — *2) Weak.

EXERCISE THIRTY-EIGHT.

(The positions may be ignored.)




c.
*2)
Händel
d.
Faisst
e.
*2)
*3)
f.
Forsyth
g.
*4)

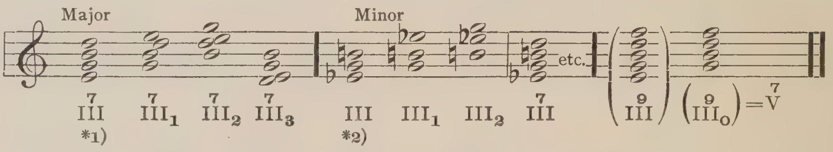
*1) Omit the fifth. — *2) Rhythm ♩ ♪ —. *3) See par. 218*a*. — *4) Ex. 186, Note *2).
Add **Original basses.**

B. The Discords of the Fourth class.

255. This exceedingly rare class of discords consists of the chords of the 7th and 9th upon the **third step** in major and minor, and the triad III in minor.

The chord of the ninth is, as usual, almost useless in 4-part harmony, and when its root is removed, the original $\overset{7}{\text{V}}$ reappears. This proves that the circle of chords which constitutes a key is herewith completed.

Ex. 189.

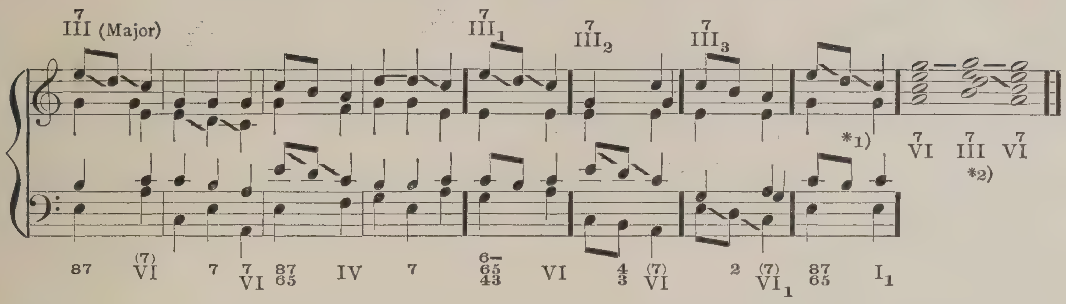

Major
Minor
etc.
$\overset{7}{\text{III}}$ *1)
$\overset{7}{\text{III}_1}$
$\overset{7}{\text{III}_2}$
$\overset{7}{\text{III}_3}$
III *2)
III_1
III_2
$\overset{7}{\text{III}}$
$\left(\overset{9}{\text{III}}\right)$
$\left(\overset{9}{\text{III}_0}\right)=\overset{7}{\text{V}}$

*1) Spoken: "Three-seven." — *2) The III in minor is an **augmented triad** (par. 127). It is more peculiar in sound than the diminished triads, but very effective when properly used.

The $\overset{7}{\text{III}}$ in Major.

256. The $\overset{7}{\text{III}}$ in major is resolved normally into 3rd-class chords (comp. par. 246*c*), $\overset{7}{\text{VI}}$ (and VI); not into the $\overset{7}{\text{I}}$ or I. But, similar to the 2nd and 3rd classes, it prefers an irregular res., into the IV and $\overset{7}{\text{IV}}$. See par. 124*b*. The dissonance is treated like other sevenths.

Ex. 190.



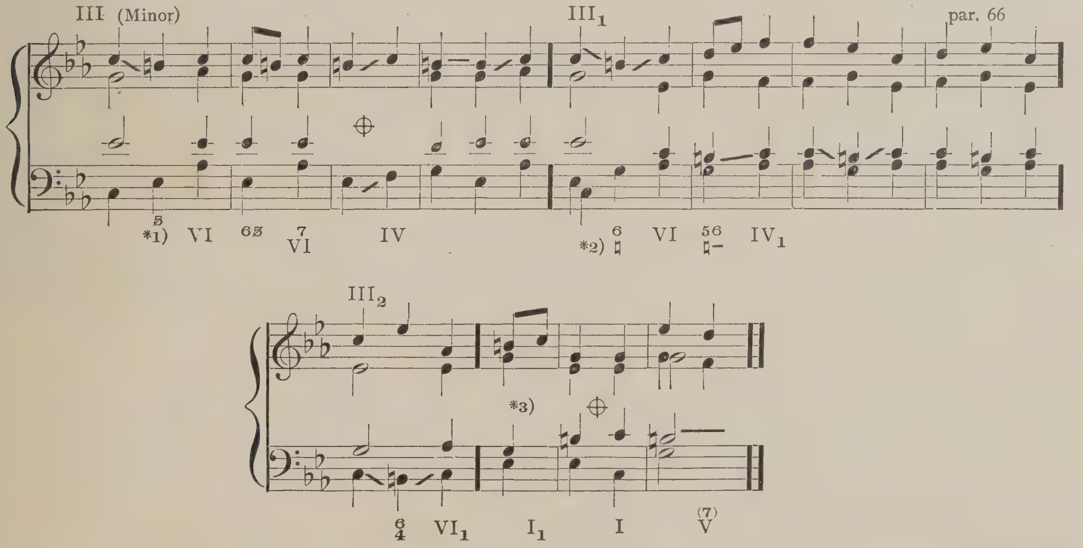
$\overset{7}{\text{III}}$ (Major)
$\overset{7}{\text{III}}_1$
$\overset{7}{\text{III}}_2$
$\overset{7}{\text{III}}_3$
*1)
$\overset{7}{\text{VI}}$ $\overset{7}{\text{III}}$ $\overset{7}{\text{VI}}$
*2)
87 (7) VI 7 $\overset{7}{\text{VI}}$ 87 65 IV 7 6– 65 43 VI 4 3 (7) VI 2 (7) VI_1 87 65 I_1

*1) When followed by the I, the $\overset{7}{\text{III}}$ is not an *actual chord*, but only a combination of grace-notes resembling a chord. Comp. Ex. 186, Note *3). — *2) The "digression" from 3rd-class into 4th-class chords is possible in major, but very inferior, and rare.

The III, $\overset{7}{\text{III}}$ and $\overset{9}{\text{III}}$ in Minor.

257. *a.* The triad III in **minor** sounds, and is treated, very differently from the major III. Its dissonance (the augm. fifth), being the leading-tone of the *minor* scale, *must ascend to the tonic.* (See also par. 201.) The best resolution is the normal, into the VI (or $\overset{7}{\text{VI}}$). The irregular resolution is hazardous, on account of the upward progression of the leading-tone; only the IV_1 is possible. The dissonance may lie in any part, and is introduced *strictly.*

Ex. 191.



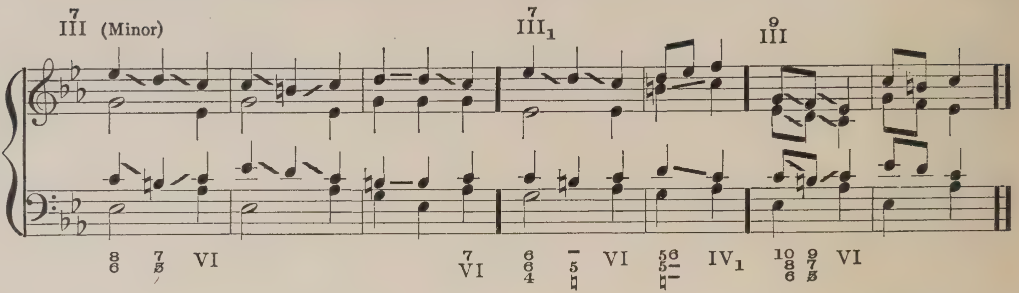
III (Minor)
III_1
par. 66
5 *1) VI 65 $\overset{7}{\text{VI}}$ IV
*2) 6 ♮ VI 56 ♮– IV_1
III_2
*3)
6 4 VI_1 I_1 I (7) V

*1) The line through the figure 5 signifies, as usual, that the corresponding note is *raised.* — *2) When an accidental stands alone, in the bass figuring, it refers to the figure 3. — *3) The progression of the III or III_1 into the I or V is not "harmonic"; Ex. 190, Note *1).

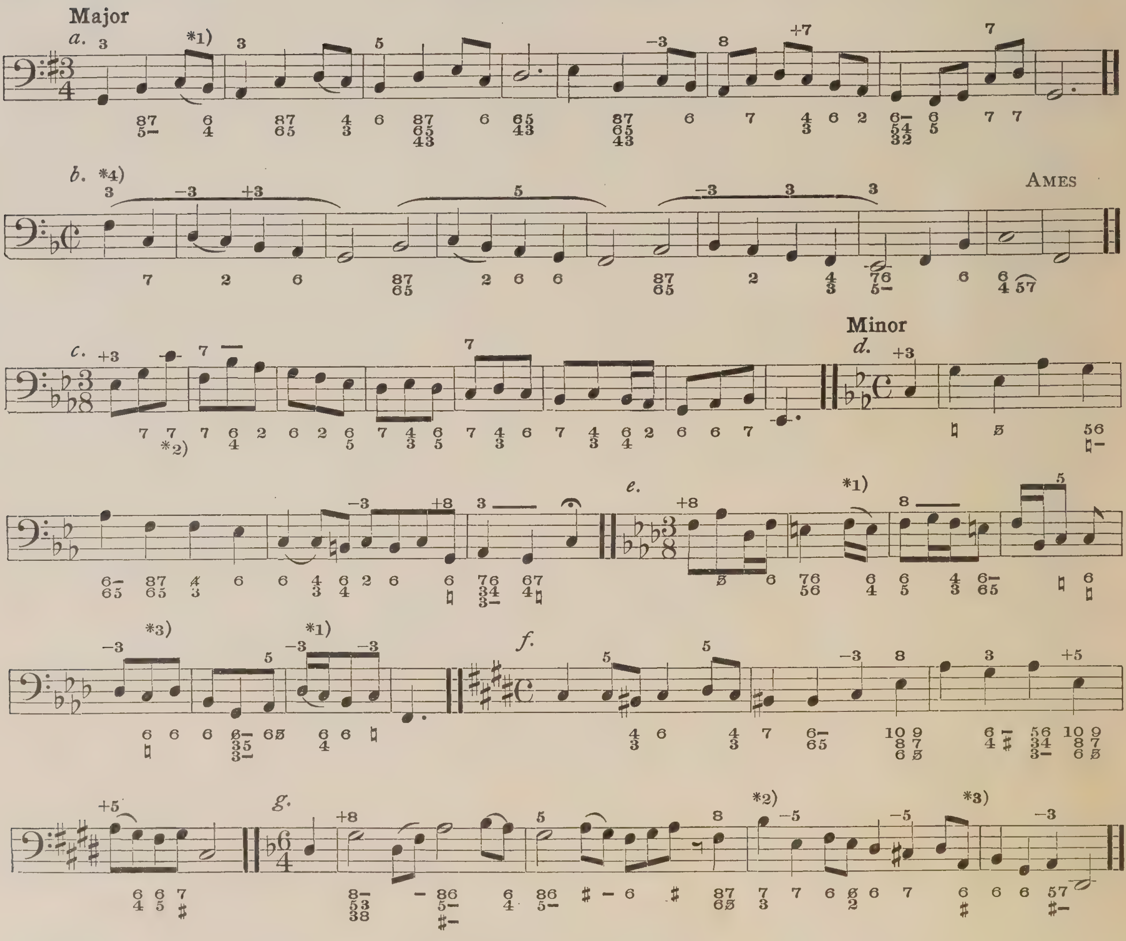
258. *a.* The chord of the $\overset{7}{\text{III}}$ in minor is effective when properly treated.

b. The $\overset{9}{\text{III}}$ is not absolutely useless, — probably on account of its resemblance to the $\overset{7}{\text{V}}$. It is treated like the III itself; the seventh and ninth resolve *downward.*

Ex. 192.


III 7 (Minor)
III₁ 7
III 9
VI
VI 7
VI
IV₁
VI

EXERCISE THIRTY-NINE.


Major
a.
b.
AMES
c.
Minor
d.
e.
f.
g.

*1) Ex. 140. — *2) Omit the fifth. — *3) Par. 157*a*. — *4) Sequences in soprano, as shown by slurs; par. 260. Add **Original phrases.**

TABLE OF THE HARMONIC SYSTEM OF A KEY.

259. The following table illustrates the arrangement and relations of the chords within each key.

	Tonic class	**Dominant** or **First class**	**Second-dominant** (Subdominant), or **Second class**	**Third class**	**Fourth class**
Concords	**I** **VI** and inversions	**V** **(III)** and inversions	**IV** **II** and inversions		
Discords		$\overset{7}{\mathrm{V}}$ $\mathrm{o}\overset{7}{\mathrm{V}}$ $\overset{9}{\mathrm{V}}$ $\mathrm{o}\overset{9}{\mathrm{V}}$ and inversions	$\overset{7}{\mathrm{II}}$ $(\overset{9}{\mathrm{II}})$ $\overset{7}{\mathrm{IV}}$ and inversions	$\overset{7}{\mathrm{VI}}$ $(\overset{9}{\mathrm{VI}})$ $\overset{7}{\mathrm{I}}$	$\overset{7}{\mathrm{III}}$ $(\overset{9}{\mathrm{III}})$ **III** in minor

a. The chords in parenthesis are *rare.*

b. The classes are a *perfect fifth* (harmonic degree) apart; par. 198*a.*

c. The tonic class is inactive, the others are all active; comp. par. 251*b.*

d. The normal (regular) progressions or resolutions are made by each class *one grade from right to left* (*towards* the tonic); par. 100*b;* 246*c.*

e. The reversed progression (*away* from the tonic) is the "digression"; par. 248; also 100*a.* This, and the progression of *two* grades (par. 253), are both irregular.

f. Every *regular* progression is complete in itself, and cancels the obligations of its class. Every *irregular* progression, on the contrary, is only a partial resolution, or none at all, and demands justification by *subsequent* resolution. The best and commonest method is, after every irreg. prog., to *return* immediately to the former class; Ex. 67, Note *2); par. 217*a.*

g. The movements of the triad III are eccentric.

SEQUENCES.

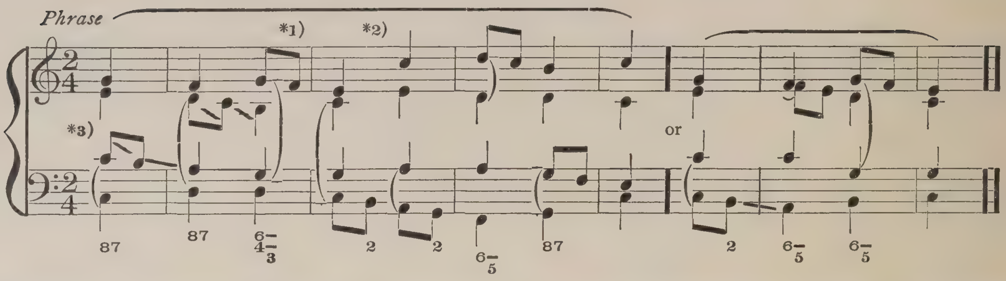
260. A sequence is the reproduction of a tone-figure upon other, higher or lower, steps. When limited to one part it is called a melodic sequence; when applied to all four parts at once, it is a full harmonic sequence.

261. Such shifted reproductions are possible almost anywhere, because every chord of every class is subject to the selfsame rules, as has been seen. And where irregularities or exceptional movements result, *they are considered justified by the sequential* (*i.e., uniform*) *arrangement of the tones.*

262. The following formulæ, deduced from foregoing illustrations, will be found useful for the formation of *tone-groups* which may be utilized in the sequence:

a. The succession 8–7 represents the introduction of a 7th diatonically from above. This, *followed by the descending resolution of the 7th,* is always good. The interval 8 may represent a *doubled root,* in *any* two of the parts; and *either of the two tones* may descend to the chord-7th, the other tones being held:

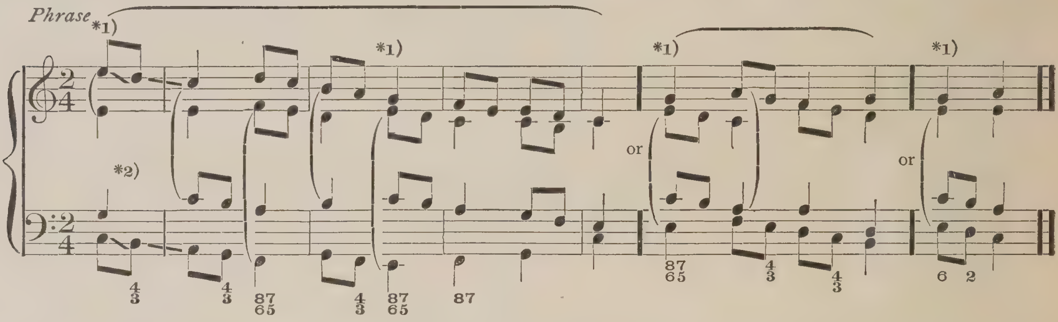
Ex. 193.



*1) Here the body assumes the form of a 4-3 chord; and *2) here that of a chord of the second. The principle is everywhere the same; the *root* is doubled. — *3) These measures form a continuous phrase, to the heavy bar.

Or the interval 8 may represent a *doubled third*, in any two parts, with similar treatment:

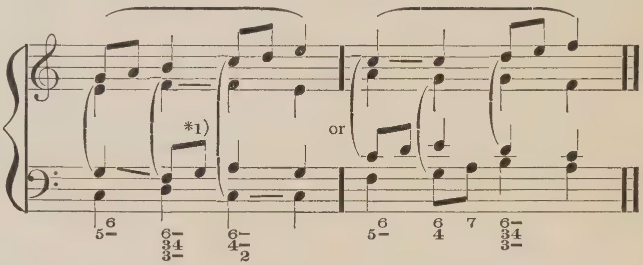
Ex. 194.



*1) Note the variety of results from doubling this third (*e*) in different parts, and allowing *either* of the two tones to glide downward. — *2) Note that when the *chord-third* is thus doubled, *two* parts always glide down together *in parallel thirds, or sixths.* Par. 66.

b. The interval 8 may, rarely, represent the chord-fifth, and in this case one part usually glides *upward,* — the stationary tone becoming a 7th by preparation:

Ex. 195.

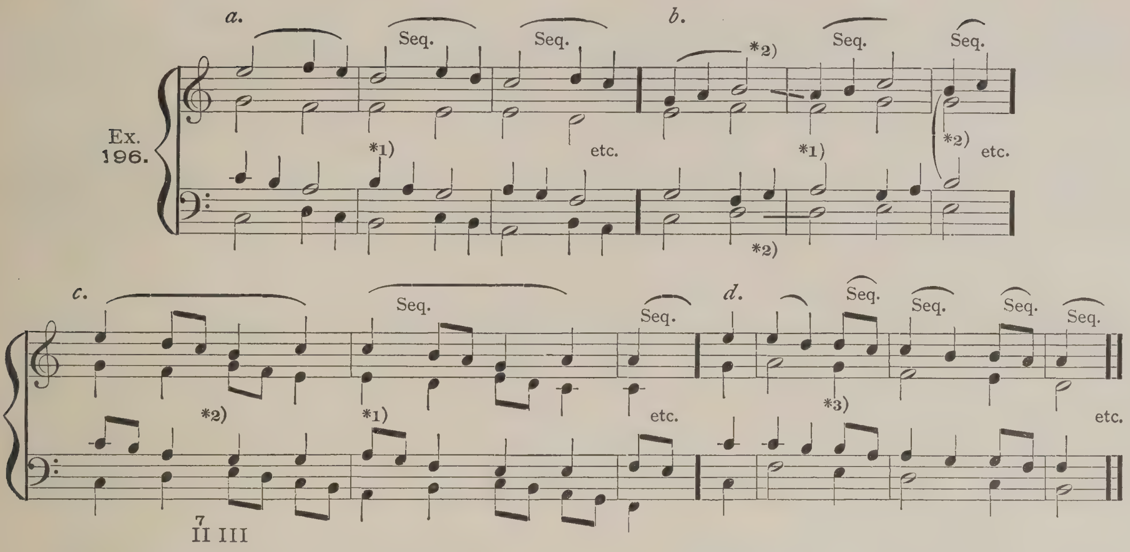


*1) The 7th, in this case, generally remains (passive resolution). The somewhat complex bass-figuring differs according to the interval which chances to be in bass.

263. The most of these groups are limited to *major,* as the scale-steps 6–7 are almost constantly implicated in such general movements. But the chords may appear *in any time-values,* — full beats as well as fractions.

264,A. With this material, and a few other combinations, harmonic sequences may readily be formed. For example:

Ex. 196.


a.
Seq.
Seq.
*1)
etc.
b.
*2)
Seq.
Seq.
*1)
*2)
etc.
*2)
c.
Seq.
Seq.
*2)
*1)
etc.
d.
Seq.
Seq.
Seq.
Seq.
*3)
etc.
7
II III

*1) The sequential recurrence can begin only where the formation *corresponds to the beginning of the original group.* — *2) These irregularities are all excused by the sequential agreement. — *3) The sequence may appear in any altered rhythmic form, or at any beat.

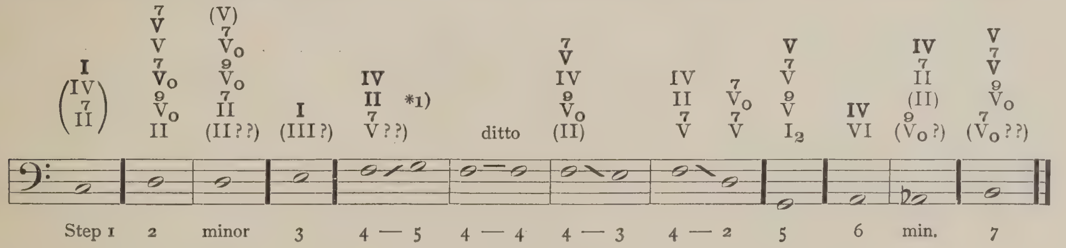
EXERCISE FORTY.

Original phrases, illustrating the formations in Exs. 193 to 196, but with correct perfect cadence.

Harmonizing of Unfigured Basses.

264,B. The harmonizing of an unfigured bass does not differ materially from that of a given soprano. The most important aim is **to obtain a melodious soprano.** The following table indicates the treatment of each scale-step in bass:

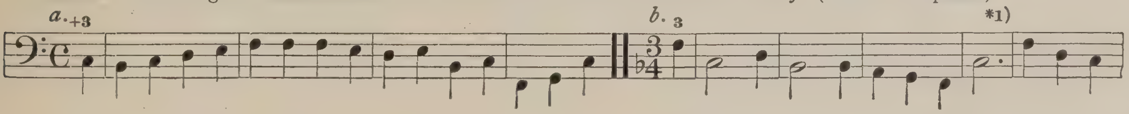
Ex. 196B. C major

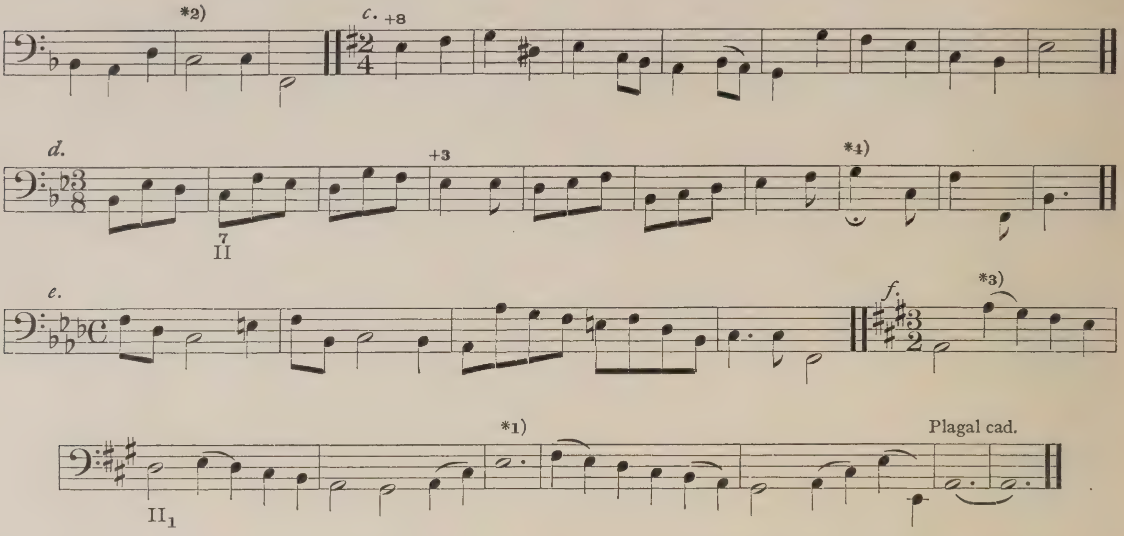

I
(IV 7 II)
7 V
V
7 V0
9 V0
II
(V)
7 V0
9 V0
7 II
(II??)
I
(III?)
IV
II *1)
7 V??)
ditto
7 V
IV
9 V0
(II)
IV
II
7 V
7 V0
7 V
V
7 V
9 V
I2
IV
VI
IV
7 II
(II)
9 (V0?)
V
7 V
9 V0
7 (V0??)
Step 1
2
minor
3
4 — 5
4 — 4
4 — 3
4 — 2
5
6
min.
7

*1) See also par. 211, and par. 226. And compare the whole table with Ex. 178.

EXERCISE FORTY-ONE.

Each of these unfigured basses should be worked out in *at least* three different ways (with new soprano).

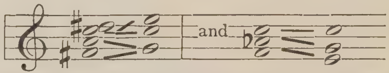




*1) Semi-cadence, with I_2. — *2) Comp. Ex. 146, Note *2). — *3) Upper parts held. — *4) Deceptive cadence.

DIVISION C. THE ALTERED AND MIXED CHORDS.

265. Altered and mixed chords contain one or more tones written with accidentals (♯, ♭ or ♮) and therefore foreign to the scale in which they appear, but which nevertheless, from their connections and their effect, obviously belong to the *principal key*, and not to that key which the chromatic (foreign) tone seems to indicate.

For example, the chords  and many others, are used in C major as if they were legitimate chords of that key (despite the *d*♯, *f*♯ and *a*♭), without disturbing the identity of C major by conveying a distinct impression of the keys to which these foreign tones *actually* belong.

266. *a.* Such chords are called "altered" or "mixed," and the foreign tone, which is "borrowed" from a related scale, is defined as a chromatically **raised or lowered scale-step** of the original key.

b. That a key and chord may embrace a chromatic tone, foreign to its scale, is a fact which, contradictory as it may appear, is confirmed on every page of classic music. The operation of this principle has already been seen, in the formation of the minor mode. See par. 101.

c. The object of such foreign tones is: To enlarge and enrich the scale; to confirm, or to modify, the melodic tendencies of the scale-steps; and to affiliate the keys by increasing the number of common tones (for instance, by raising the 4th step of C to *f*♯, the scales of C and G major are affiliated).

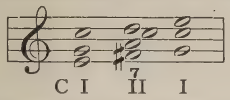
267. It is evident that such foreign tones can be introduced into a scale only upon certain conditions. They are as follows:

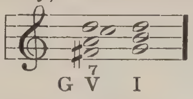
a. The altered tone must be reasonably *brief;* otherwise it may, by sheer length, assert its independent individuality and produce the impression of the scale to which it actually belongs. The limit will generally be one or two beats.

b. It must occur in such a connection as not to interfere with the legitimate harmonic action of the key. Hence, *only certain steps of the scale* can be altered, and these *only in certain chords*.

c. The most important condition is, that the *following chord shall unmistakably indicate and confirm the original key.* That is, the altered chord will (as a rule) be immediately followed by a *tonic chord* (I–I_1–I_2), or, more rarely, by a $\overset{7}{V}$ or $\overset{9}{V}$.

d. When the chord which *follows* (and, as is probable, the chord which *precedes*, also) confirms the original key, then *no change of key takes place,* and the foreign tone is merely a transient chromatic inflection of the corresponding scale-tone. In this case: the accidental is not an actual *f*♯, in its legitimate personality as leading-tone of G major, but merely "*f*-raised" or "*f*-altered." But if, on the contrary, the next chord corroborates the foreign tone, as tonic chord of the key which that tone seems to represent, thus: then it proves to be an *actual* *f*♯ in its genuine capacity as leading-tone of G major.





e. In a word, as a general fundamental rule *one chord alone does not represent and indicate a whole key*, any more than one isolated tone can represent a chord or scale. If a foreign chord stands isolated between two chords which are unmistakably indicative of the original key, then *it also belongs to that key,* — of course, as altered chord; but, if the following chord confirms the key suggested by the foreign tone, then these two chords *together* constitute a more or less complete modulation, or change of key.

The identity of a chord depends upon **what it does,** — *i.e.*, **upon its progression.**

f. Altered chords are always defined according to the *scale-step* which is raised or lowered.

SECTION 1. THE ALTERED CHORDS.

A. In major.

268. The altered chords have a legitimate chord-form, and therefore coincide with authentic chords of some other key.

269. The introduction and progression of altered chords are subject to the following rules:

a. Lowered notes descend. Raised notes ascend. Comp. par. 201.

b. Altered notes must not be doubled.

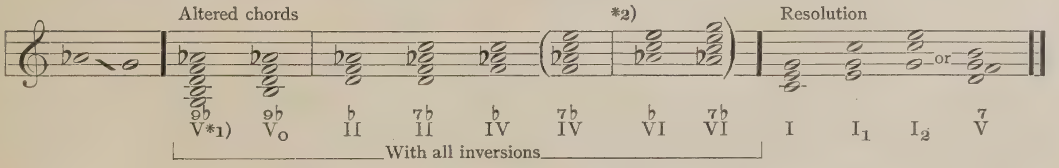
c. *In general*, the altered chords are treated the same as if unaltered. The principal exception is par. 267*c*: *i.e.*, they generally resolve into the I (or Five-seven).

d. The altered note may be introduced *diatonically* (for instance, the tone *a*♭ from *g*), or *chromatically* (the tone *a*♭ from *a*). See Note to Ex. 8.

e. In chromatic successions, the *first* tone should not be doubled, unless the other tone (the duplication) progresses *diatonically, contrary to the direction of the chromatic progression.* See Ex. 198, Note *6). And the chromatic progression must be made in *one single part.* Ex. 198, Note *7).

270. The **6th step** may be **lowered,** in the following chords:

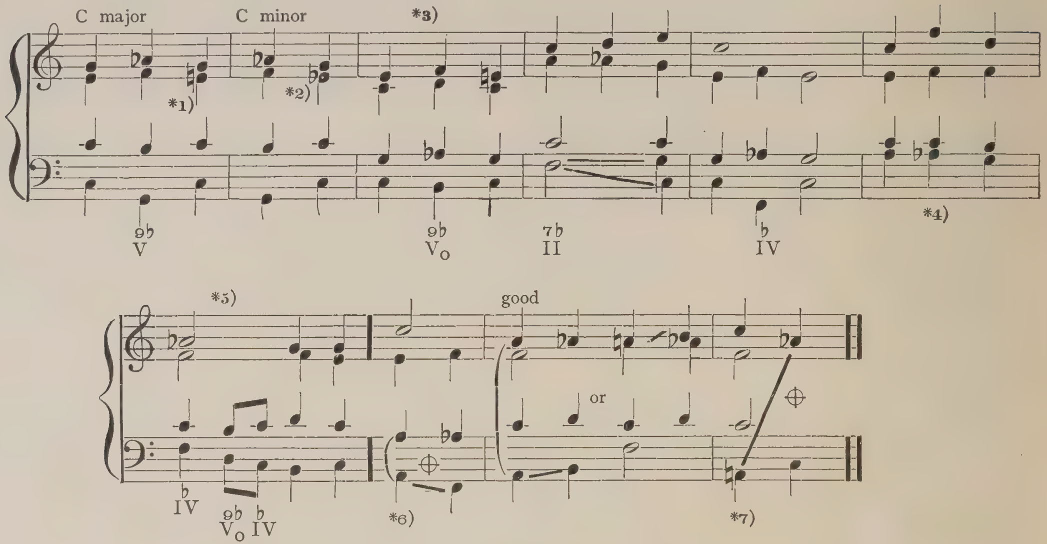
Ex. 197. C major



*1) Spoken: "Five-nine altered." The flat indicates that the chord contains a *lowered* scale-step. — *2) These three chords are possible, but rare.

The intr. and prog. of the chords with lowered 6th step, are effected as follows:

Ex. 198. C major


C major
C minor
*3)
*1)
*2)
9♭ V
9♭ V₀
7♭ II
♭ IV
*4)
*5)
good
or
♭ IV
9♭ V₀
♭ IV
*6)
*7)

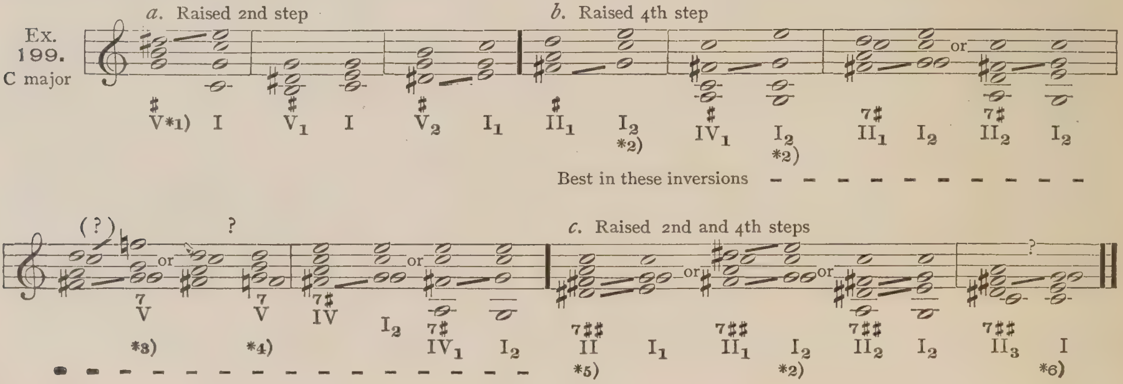
*1) With e♮, as I of C *major*, the preceding chord is *altered*, in C major. — *2) With e♭, as I of C *minor*, the preceding a♭ is a legitimate scale-step, and the chord is authentic, in C minor. See par. 267*d*. — *3) This is the chord of the diminished 7th, which, in this altered form, *becomes as available in major as in minor.* — *4) The altered scale-step may lie in any part. — *5) Comp. par. 267*a*. — *6) This is wrong, because the *a* in tenor which is about to move chromatically into a♭, is doubled in bass, where it progresses *with a skip*. In the next measure, where the duplicating tone moves *diatonically*, the so-called "cross-relation" is rectified. See par. 322. — *7) The chromatic inflection cannot be divided between two parts, as here in bass and soprano.

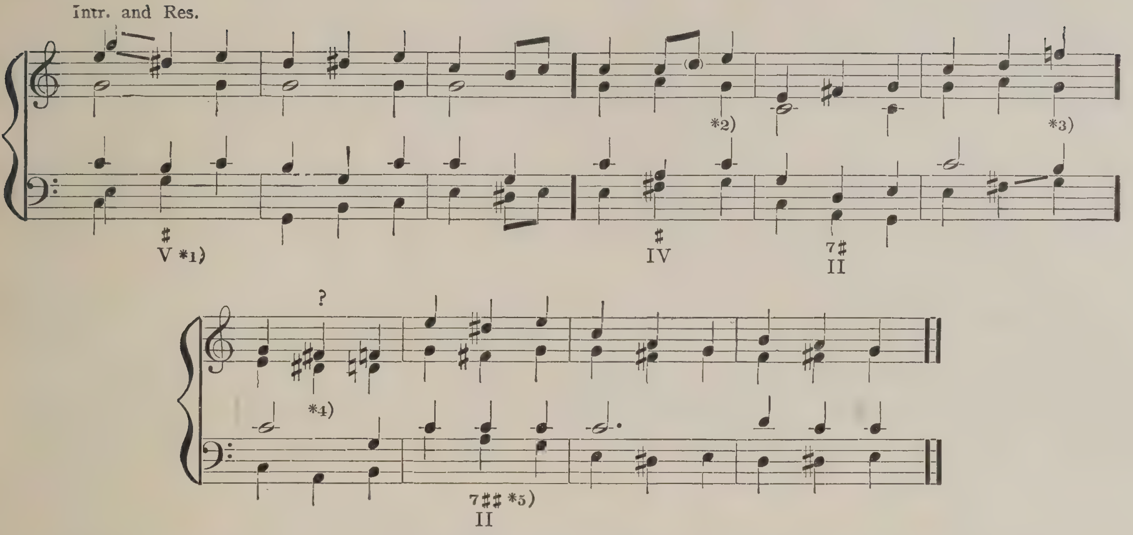
271. *a.* The **raised 2nd step,** *when alone*, can occur only in chords of the **First class;** *i.e.*, in dominant chords.

b. The **raised 4th step** can never occur in any other than **Second-class** chords; *i.e.*, in the II, IV, $\overset{7}{\text{II}}$, $\overset{7}{\text{IV}}$.

c. The **2nd and 4th steps** may be raised together; but (on account of the 4th step) only in a **Second-class** chord.

Ex. 199. C major


a. Raised 2nd step
b. Raised 4th step
♯ V *1)
I
♯ V₁
I
♯ V₂
I₁
♯ II₁
I₂ *2)
♯ IV₁
I₂ *2)
7♯ II₁
I₂
or
7♯ II₂
I₂
Best in these inversions
(?)
?
or
7 V *3)
7 V *4)
7♯ IV
I₂
or
7♯ IV₁
I₂
c. Raised 2nd and 4th steps
7♯♯ II *5)
I₁
or
7♯♯ II₁
I₂ *2)
or
7♯♯ II₂
I₂
?
7♯♯ II₃
I *6)



*1) Spoken "Five-altered;" the ♯ indicates that the chord contains a *raised* scale-step. — *2) It will be noticed that most of the altered chords of the 2nd class progress into the I_2 (6–4 chord). — *3) The progression into the $\overset{7}{V}$ reëstablishes the original key, and is therefore admissible; but it is rare, and does not sound genuine. The chromatic succession, in this instance, will be divided between two parts, if the raised step ascends. See Ex. 206, Note *1). — *4) In this case the *f*♯ can hardly be termed a raised 4th step of *C*. This progression will be explained later. — *5) The two sharps above the II indicate that the chord is "double-altered." — *6) This inversion of the altered $\overset{7}{II}$ is somewhat rare. The passive res. of the seventh in the lowest part is uncommon. See Ex. 180, Note *10).

272. The following alterations in major are *much less common:*

a. The **5th step** may be **raised**; but only in the I or $\overset{7}{I}$.

b. The **1st step** may be **raised,** in the I or VI ($\overset{7}{VI}$).

c. The **6th step** may be **raised,** *but only in connection with the raised 1st step, — never alone.*

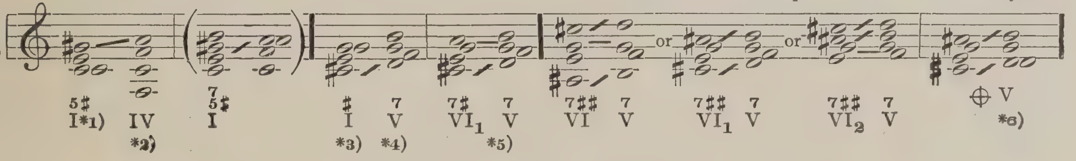
d. The raised 1st step, or 1st and 6th steps, must be followed by a Dominant-**discord,** — not by the V itself.

e. The **6th and 2nd steps** may be **lowered together,** — only in the II_1 (II_2).

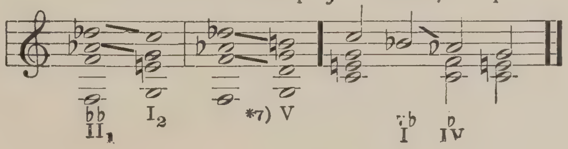
f. The **7th step** may be **lowered** (as in minor, — par. 277), — only when followed by the *lowered 6th step;* it is very rare, but possible in the V, $\overset{7}{V}$, III, $\overset{7}{I}$, — see Exs. 205 and 206, which may be written, almost throughout, with *e*♮ instead of *e*♭.

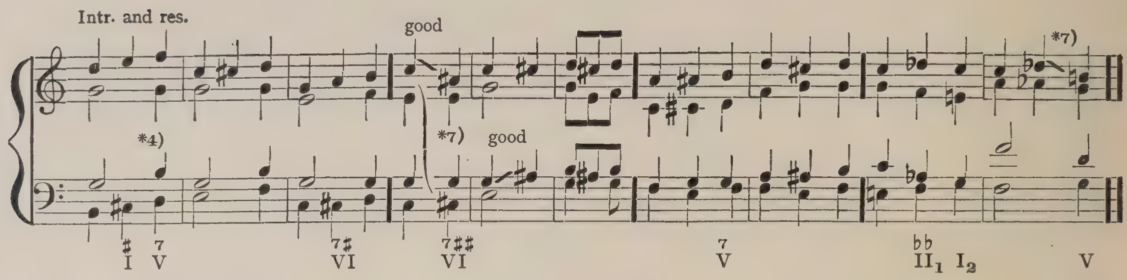
a. Raised dominant *b.* Raised tonic *c.d.* Raised tonic and 6th step not C maj.

Ex. 200.



e. Lowered 6th and 2nd steps *f.* Lowered 7th step

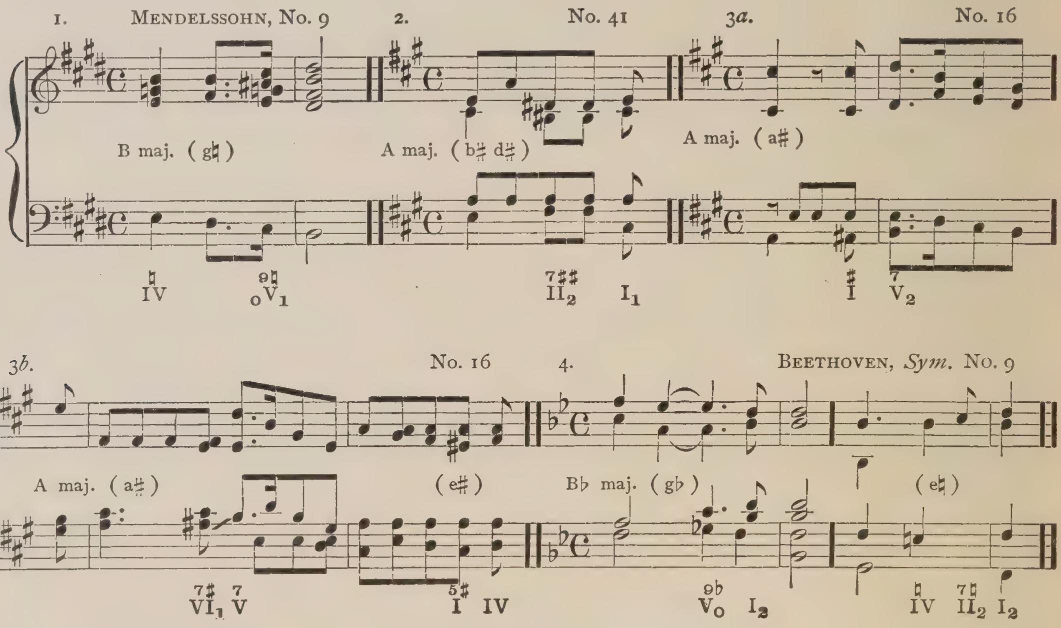


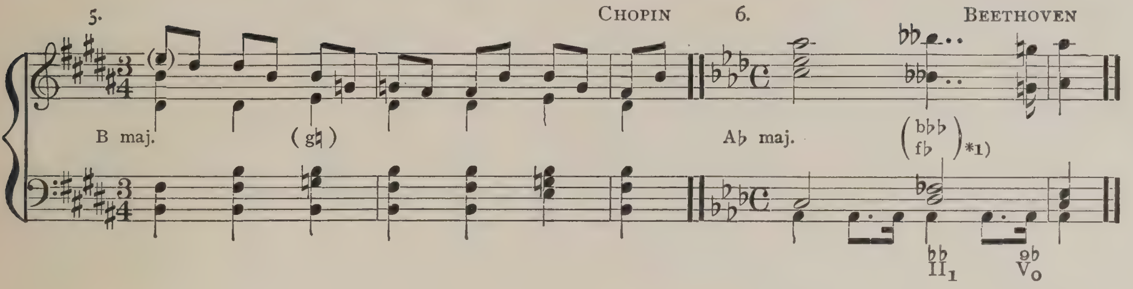

Intr. and res.
good
*7)
*4)
*7)
good
♯ I
7 V
7♯ VI
7♯♯ VI
7 V
♭♭ II₁
I₂
V

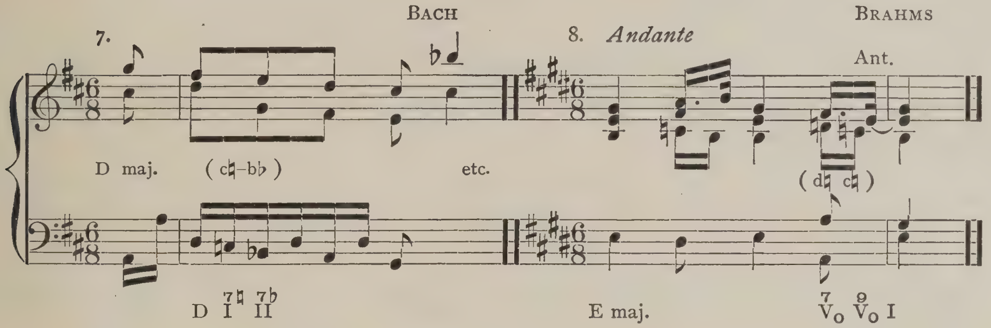
*1) Thus marked to indicate that the *fifth* is raised. — *2) The resolution of the altered tone (upward into *a*) renders the IV necessary, as resolution. This is not directly contradictory of par. 267*c*, because the IV does not confirm the *g*♯ as leading-tone of A minor. — *3) This notation denotes that the root of the I is raised. — *4) Par. 272*d*. See Note *6). — *5) When the $\overset{7}{\text{VI}}$ is *altered*, its seventh will *remain stationary*, — contrary to Ex. 187. — *6) If the V itself were to follow, these chords would both be in *G major*. The $\overset{7}{\text{V}}$, on the contrary, reëstablishes the original key (C). — *7) The peculiar progression in soprano is necessary here.

In the following additional illustrations of the altered chords in major, the numbers after Mendelssohn's name refer to his "Songs without Words:"

Ex. 201.


1.
MENDELSSOHN, No. 9
B maj. (g♮)
♮ IV
9♮ ₀V₁
2.
No. 41
A maj. (b♯ d♯)
7♯♯ II₂
I₁
3a.
No. 16
A maj. (a♯)
♯ I
7 V₂
3b.
No. 16
A maj. (a♯)
7♯ VI₁
7 V
(e♯)
5♯ I
IV
4.
BEETHOVEN, Sym. No. 9
B♭ maj. (g♭)
9♭ V₀
I₂
(e♮)
♮ IV
7♮ II₂
I₂


5.
CHOPIN
B maj.
(g♮)
6.
BEETHOVEN
A♭ maj.
(b♭♭ f♭) *1)
♭♭ II₁
♮♭ V₀

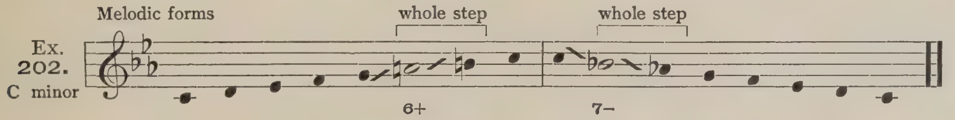

7.
BACH
D maj.
(c♮–b♭)
etc.
D I 7♮ II 7♭
8. Andante
BRAHMS
Ant.
(d♮ c♮)
E maj.
7 V₀ 9 V₀ I

*1) Par. 272*e*. The *a*♭ in bass is an organ-point (par. 365*a*). See also Ex. 282, No. 6.

B. Altered chords in Minor.

273. The alterations in minor are reckoned from the *harmonic* form of the scale, and they tend chiefly to remove the unmelodious progressions between the 6th and 7th scale-steps (Ex. 70). This interval embraces one and a half step, and therefore does not conform to the principle of scale-formation (par. 16). In order to reduce it to a whole step, the *6th step is raised when it ascends to step 7* and the *7th step is lowered when it descends to step 6*. These alterations make the scale singable throughout (see Note to Ex. 70), and produce the so-called *melodic* forms of minor. See par. 104.

Ex. 202.

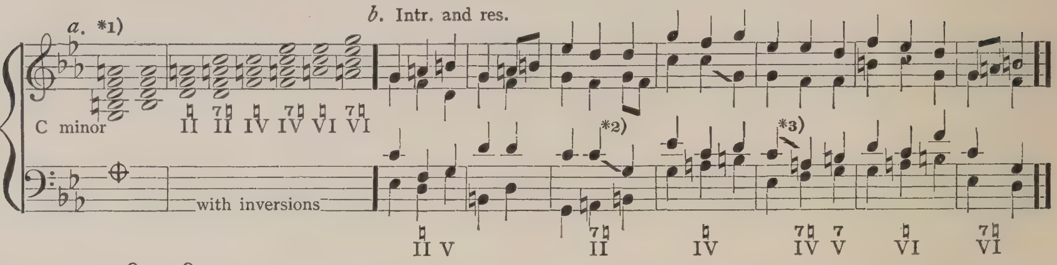

Melodic forms
whole step
whole step
C minor
6+
7−

N.B. Write out this example in every minor mode.

274. The altered chords in minor do not endanger the identity of their key as much as those in major do. Hence it is not so essential that the I or $\overset{7}{V}$ should follow immediately (comp. par. 267*c*). The chord which follows will depend upon the tendency of the altered tone, which, of course, must be fulfilled.

275. The **raised 6th step,** as factor of the ascending melodic minor scale, is generally introduced diatonically from *below*, and progresses diatonically *upward* (as seen in Ex. 202). It occurs in the following chords, and is invariably resolved into *dominant* chords.

Ex. 203.

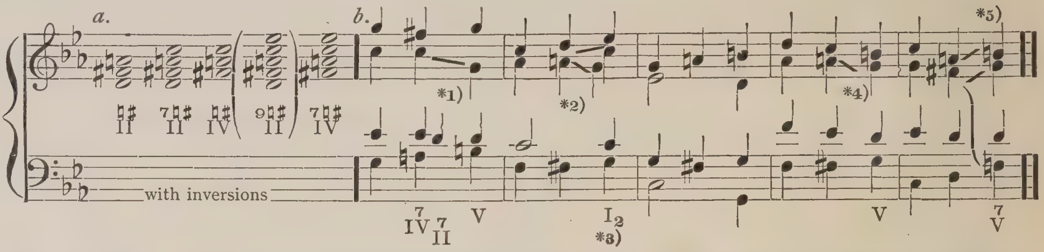

a. *1)
b. Intr. and res.
C minor
II 7II IV 7IV VI 7VI
with inversions
*2)
*3)
II V
7II
IV
7IV 7V
VI
7VI

*1) Neither the $\overset{9}{\mathrm{V}}$ nor $\overset{9}{\mathrm{V}}_0$ can contain the raised 6th step, because it would interfere with the resolution of the ninth (downward). — *2) The altered $\overset{7}{\mathrm{II}}$ of minor requires a free resolution of its seventh, in order to avoid a duplication of the leading-tone. It can skip down to the dominant, or pass upward in parallel 3rds with the bass. Ex. 180, Note *9). — *3) The raised 6th step occasionally enters with a skip *from above.*

276. Sometimes the **4th step is raised,** in conjunction with the raised 6th step, in order to improve the *sound* of the chords.

As stated in par. 271*b*, this alteration is limited to *Second-class* chords, — II–IV–$\overset{7}{\mathrm{II}}$–$\overset{7}{\mathrm{IV}}$. One advantage arising from this double-alteration is, that the chords can progress into the I, as well as into the V; in which case the raised 6th step is relieved of its obligations, and *may progress in either direction.*

Ex. 204. C minor

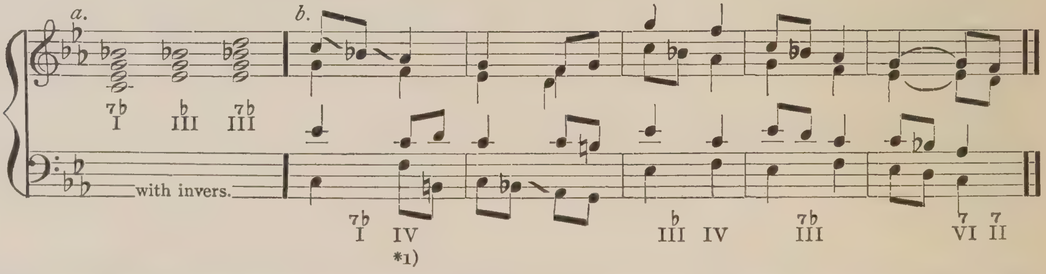

a.
b.
II 7II IV 9II 7IV
with inversions
*1)
*2)
*4)
*5)
7IV 7II V
I2 *3)
V
7V

*1) Ex. 203, Note *2). — *2) The raised 6th step, when accompanied by the raised 4th step, may move either way. — *3) Ex. 199, Note *2). — *4) See Note *2). — *5) See Ex. 206, Note *1).

---

277. The **lowered 7th step,** as factor of the descending melodic minor scale, is introduced diatonically from *above*, and invariably progresses diat. *downward.* It occurs most naturally and frequently in the $\overset{7}{\mathrm{I}}$ — which it renders possible in minor; see Ex. 184, Note *3), — and in the III or $\overset{7}{\mathrm{III}}$, which it improves in sound and treatment.

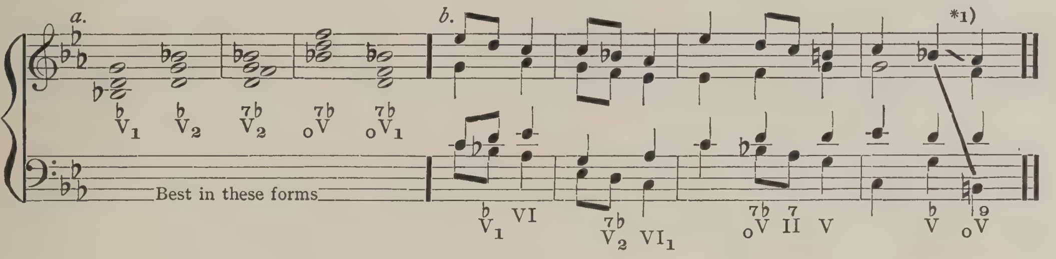
Ex. 205. C minor


a.
b.
7♭I ♭III 7♭III
with invers.
7♭I IV
*1)
♭III IV
7♭III
7VI 7II

*1) The lowered leading-tone resolves downward into the 6th step; consequently the resolving-chords will be the IV or $\overset{(7)}{\mathrm{II}}$. See par. 274.

278. The lowered 7th step may, of course, also occur in *dominant chords*, but it is hazardous to alter the leading-tone in the very chords which it ought to characterize. Therefore, these altered dominant chords are very rare.

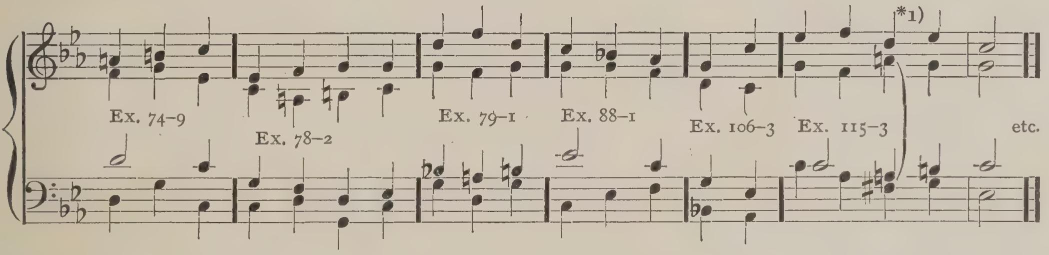
Ex. 206. C minor



*1) Here again the chromatic succession is divided between two parts, contrary to the general rule (par. 269*e*). This exception is always permissible, if the first of the two tones (here *b*♭) moves in its proper direction, *and does not skip*. Comp. Ex. 198, Note *6).

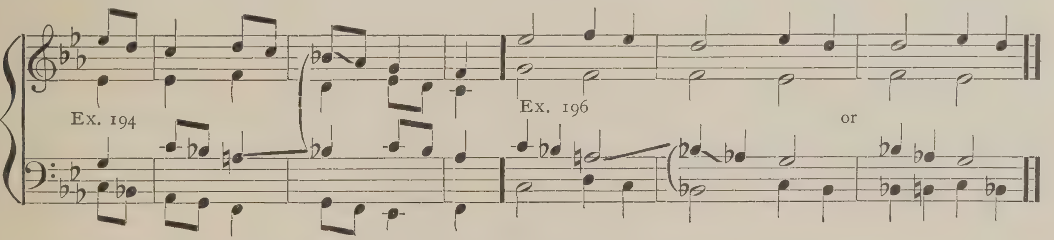
279. The application of these alterations, — raising step 6 in the succession 6–7, and lowering step 7 in the succession 7–6, — *makes every chord-succession hitherto limited to major, possible in minor also*. For illustration:

Ex. 207. C minor



*1) When either step 6 or 7 chances to be doubled, discrimination is necessary. The *more urgent* of the two tones must be correctly written, and simply doubled. Note the *a*♮, which is urgent in tenor; also the following:

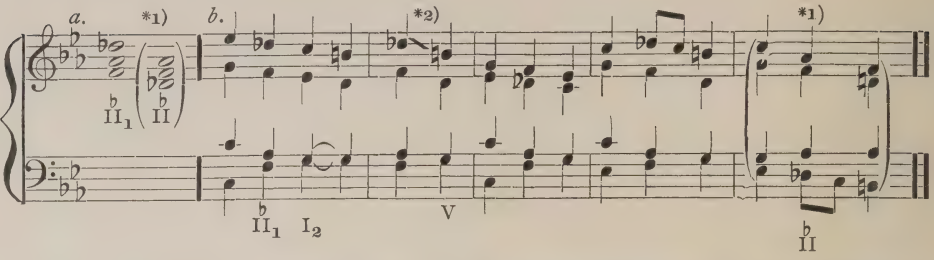
Ex. 208. C minor



The student should play *every major example* up to this point, and transform it thus into minor.

280. Further, the **2nd step** may be **lowered.** This alteration is very common and effective, but is limited almost entirely to one single chord, — the II_1. It corresponds to par. 272*e*.

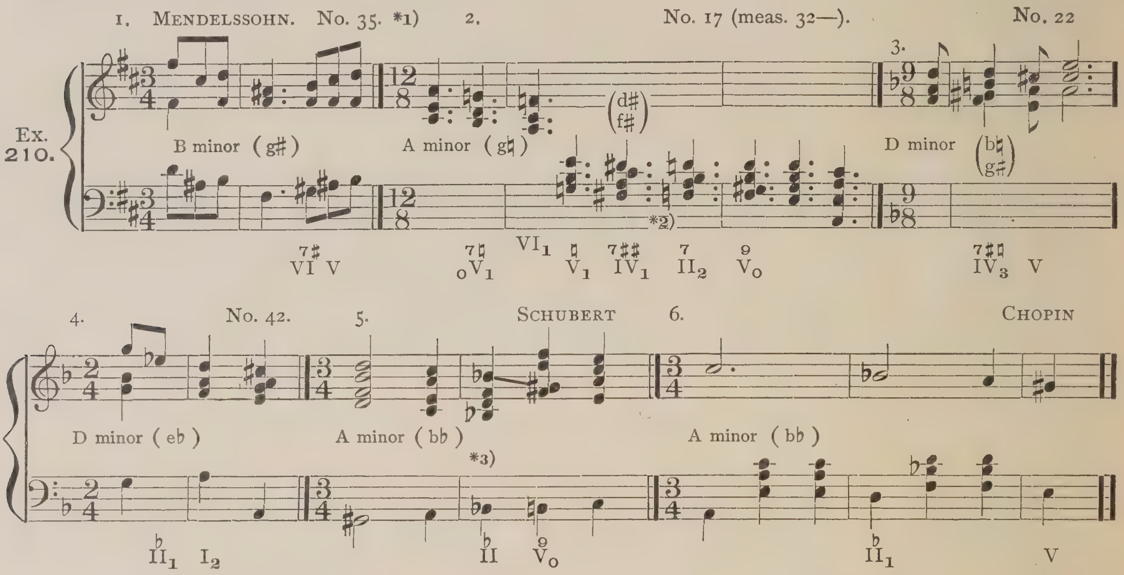
Ex. 209. C minor


a.
*1)
b.
*2)
*1)
♭II₁
♭II
♭II₁
I₂
V
♭II

*1) Possible, but very uncommon. — *2) The lowered 2nd step may progress directly into the leading-tone, even in vocal music, notwithstanding the peculiar interval-progression. Compare Ex. 200, Note *7).

Additional illustrations of the altered chords in minor:

Ex. 210.


1. MENDELSSOHN. No. 35. *1)
2.
No. 17 (meas. 32—).
No. 22
3.
B minor (g♯)
A minor (g♮)
(d♯ f♯)
D minor (b♮ g♯)
*2)
7♯ VI V
7♮ ₒV₁
VI₁
♮ V₁
7♯♯ IV₁
7 II₂
9 Vₒ
7♯♮ IV₃ V
4.
No. 42.
5.
SCHUBERT
6.
CHOPIN
D minor (e♭)
A minor (b♭)
*3)
A minor (b♭)
♭II₁
I₂
♭II
9 Vₒ
♭II₁
V

*1) "Songs without Words." — *2) Here, both altered steps progress chromatically downward. This is unusual, and very irregular. Compare Ex. 199, Note *4). — *3) Ex. 209, Note *1). The treatment is peculiar.

FUNDAMENTAL PRINCIPLES.

An altered chord must be followed by some chord which reëstablishes the original key, — usually I or V ($\overset{7}{V}$).

In major, the 6th step is the only one likely to be lowered; but nearly every step may be raised.

The raised 4th step occurs only in second-dom. chords.

The raised tonic must be followed by a dom.-*seventh.*

When the 6th step in minor rises to 7, it must be raised; and step 7 must be lowered when it falls to 6.

EXERCISE FORTY-TWO.

A. Play the following chord-progressions at the piano, at sight, *in different keys;* the bass part alone in the left hand, and the three upper parts in the right:

Major: $\mathrm{I}_1\text{—}{}_{0}\overset{9\flat}{\mathrm{V}}_2\text{—}\mathrm{I} \;\|\; \mathrm{I}\text{—}\overset{\flat}{\mathrm{IV}}\text{—}\overset{7\flat}{\mathrm{II}}_1\text{—}\mathrm{I}_2\text{—}\mathrm{V} \;\|\; \mathrm{I}\text{—}\overset{\sharp}{\mathrm{V}}\text{—}\mathrm{I} \;\|\; \mathrm{VI}\text{—}\overset{7\sharp}{\mathrm{II}}_2\text{—}\mathrm{I}_2\text{—}\mathrm{V} \;\|\; \mathrm{I}_1\text{—}\overset{7\sharp}{\mathrm{II}}_1\text{—}\overset{7}{\mathrm{V}}\text{—}\mathrm{VI} \;\|$

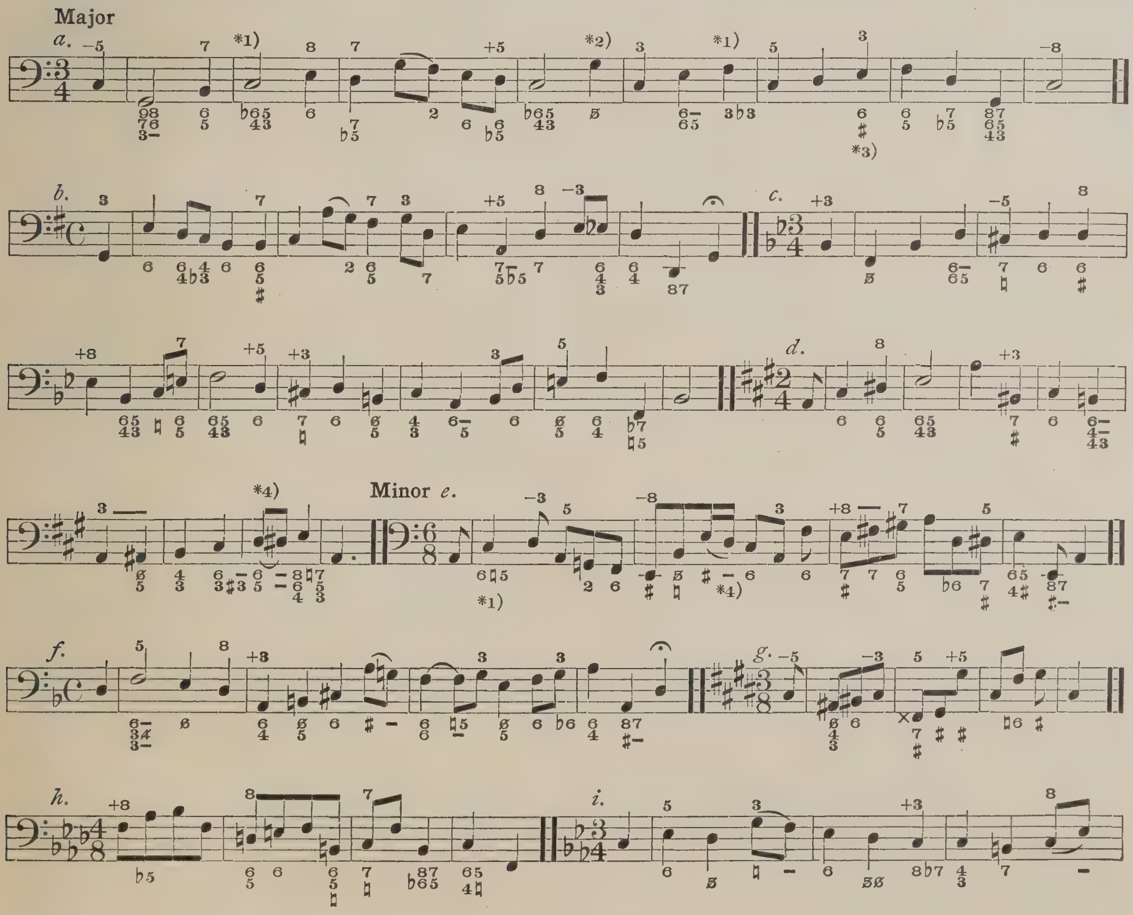
$\mathrm{I}\text{—}\overset{7\sharp\sharp}{\mathrm{II}}_2\text{—}\mathrm{I}_2\text{—}\overset{7}{\mathrm{V}} \;\|\; \mathrm{I}_2\text{—}\overset{7\sharp\sharp}{\mathrm{II}}_1\text{—}\mathrm{I}_2\text{—}\overset{7}{\mathrm{V}}_3\text{—}\mathrm{I}_1 \;\|\; \overset{5}{\mathrm{I}}_1\text{—}\overset{5\sharp}{\mathrm{I}}\text{—}\mathrm{IV}\text{—}\mathrm{V} \;\|\; \overset{5}{\mathrm{I}}\text{—}\overset{7\sharp}{\mathrm{VI}}_1\text{—}\overset{7}{\mathrm{V}}_2 \;\|\; \overset{8}{\mathrm{I}}_1\text{—}\overset{7\sharp\sharp}{\mathrm{VI}}_2\text{—}\overset{7}{\mathrm{V}}_3\text{—}\mathrm{I}_1 \;\|$

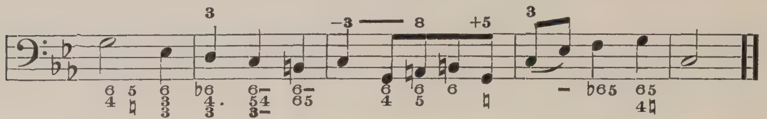
Minor: $\mathrm{I}_1\text{—}\overset{\natural}{\mathrm{II}}\text{—}\overset{7}{\mathrm{V}}\text{—}\mathrm{I} \;\|\; \mathrm{I}_1\text{—}\overset{7\natural}{\mathrm{IV}}_3\text{—}{}_{0}\overset{7}{\mathrm{V}}_1\text{—}\mathrm{I} \;\|\; \overset{3}{\mathrm{I}}_2\text{—}\overset{7\natural}{\mathrm{VI}}\text{—}\overset{7}{\mathrm{V}}_1\text{—}\mathrm{I} \;\|\; \mathrm{I}_1\text{—}\overset{\natural\sharp}{\mathrm{II}}\text{—}\mathrm{V}\text{—}\mathrm{I} \;\|\; \mathrm{I}_2\text{—}\overset{7\natural\sharp}{\mathrm{II}}_1\text{—}\mathrm{I}_2\text{—}\overset{7}{\mathrm{V}} \;\|$

$\overset{8}{\mathrm{IV}}\text{—}\overset{7\natural\sharp}{\mathrm{IV}}\text{—}\mathrm{I}_2\text{—}\mathrm{V} \;\|\; \overset{8}{\mathrm{I}}\text{—}\overset{7\flat}{\mathrm{I}}\text{—}\mathrm{IV}\text{—}\mathrm{I} \;\|\; \mathrm{I}\text{—}\overset{7\flat}{\mathrm{I}}_3\text{—}\overset{7}{\mathrm{II}}_2\text{—}\mathrm{I}_2\text{—}\mathrm{V} \;\|\; \mathrm{VI}\text{—}\overset{\flat}{\mathrm{III}}\text{—}\mathrm{IV}\text{—}\mathrm{V} \;\|\; \overset{5}{\mathrm{I}}\text{—}\overset{\flat}{\mathrm{V}}_1\text{—}\mathrm{IV}_1\text{—}\mathrm{V} \;\|$

$\mathrm{I}\text{—}\overset{\flat}{\mathrm{II}}_1\text{—}\mathrm{I}_2\text{—}\mathrm{V} \;\|\; \mathrm{I}\text{—}\overset{\flat}{\mathrm{II}}_1\text{—}\mathrm{V}\text{—}\mathrm{I} \;\|$

B. Work out the following basses in the usual manner, and analyze them with special reference to the altered chords.





*1) The accidentals in the bass-figuring refer to the figure that *follows.* — *2) A line through a figure signifies, as usual, that the corresponding tone is *raised.* — *3) A solitary accidental always refers to the figure 3. — *4) The upper parts are held.

C. Add **Original phrases.**

SECTION 2. THE MIXED CHORDS.

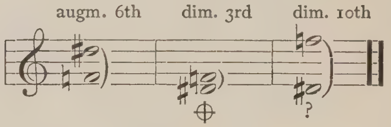
A. In Major.

281. *a.* Mixed chords have no legitimate form, but result from "mixing" characteristic tones of *different* keys. Their distinctive feature is the **interval of an augmented 6th,** which they all contain.

For this reason they are generally called "chords of the augmented 6th."

b. One of the most important rules for the treatment of mixed chords is, *that this interval (the augm. 6th) should not be* **inverted.** Thus, the interval *f♮—d♯* (in Ex. 211, 212) should not become the *dim. 3rd d♯—f♮.* An exception is allowed when the inverted tones lie *more than an octave apart,* but it is very rare. For example:

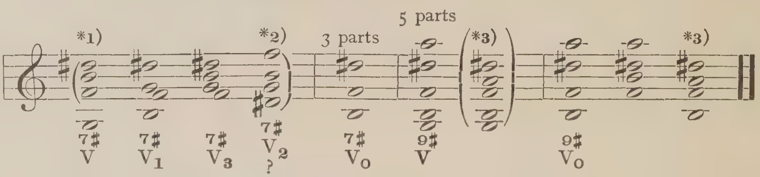
Ex. 211.



282. *a.* There are two kinds of mixed chords in major:

1st, those of the **First class,** containing a **raised 2nd step,** in conjunction with the **seventh** (or seventh and ninth) of the dominant. Compare par. 271*a.*

Ex. 212. C major



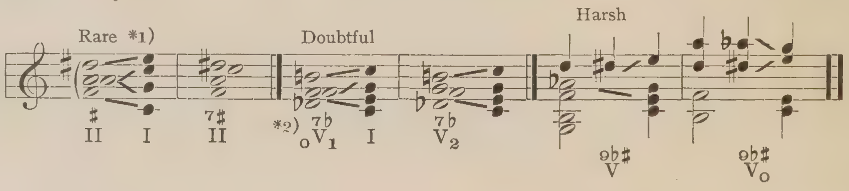
*1) The augm. 6th arises from the association of the dom.-seventh of one key (*f,* of C major) with the leading-tone of another (*d♯* of E minor). — *2) Ex. 211, meas. 3. — *3) The raised step often lies *in the soprano,* even when the major dom.-ninth accompanies it; comp. par. 229*a.*

b. This same augm. 6th is sometimes used (especially by **Schubert**) in a *Second*-class chord, II or $\overset{7}{\text{II}}$; but it is evidently not quite genuine. Further,

c. The 2nd step is sometimes *lowered,* in the dom.-discords. This, also, is of doubtful quality. Finally,

d. In some extreme cases the *minor ninth* (lowered 6th step) is associated with the raised 2nd step in these First-class chords; but the discord is very harsh.

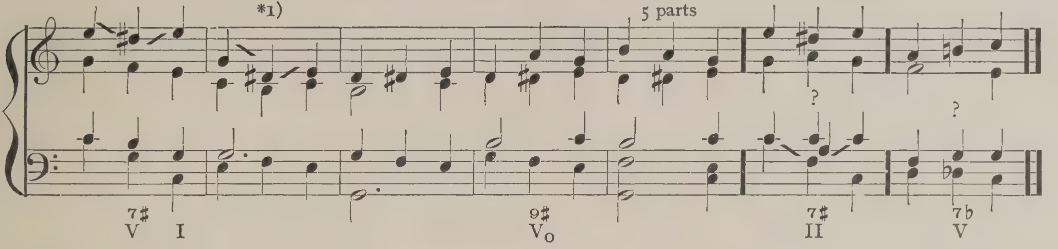
Ex. 213.



*1) These chords are more likely to be mixed chords of the relative key (A minor); see Ex. 218. — *2) The lowered 2nd step usually lies *in bass*. These two chords are probably in F major (Ex. 215).

283. The mixed chords of the First class all resolve into the tonic chord (I, and inversions). Thus:

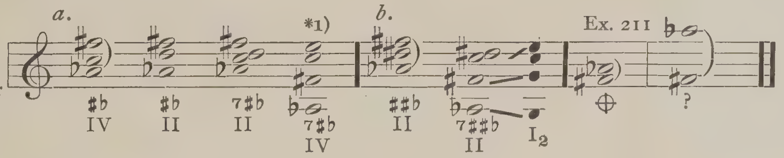
Ex. 214. C major



*1) The raised 2nd step may enter with a skip, but only from *above*. Par. 31.

284. 2nd, the other set of major mixed chords belong to the **Second class,** and contain the **lowered 6th step,** in conjunction with the **raised 4th step,** or **raised 4th and 2nd steps.** (Comp. par. 271*b*.)

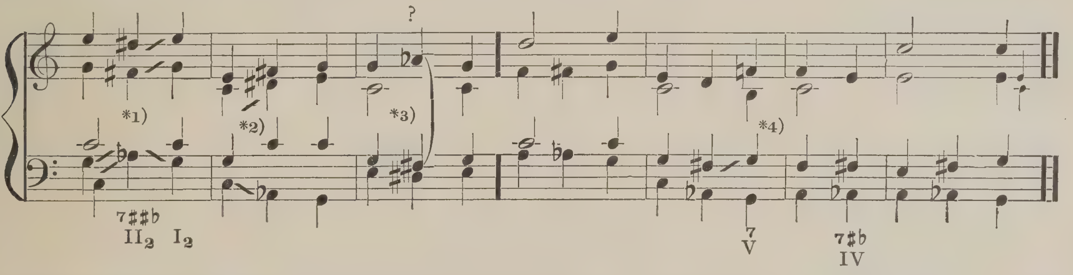
Ex. 215. C major



*1) The mixed $\overset{7}{\text{IV}}$ sounds best in this position (seventh in soprano).

The Second-class mixed chords, also, resolve into the tonic chord. Thus:

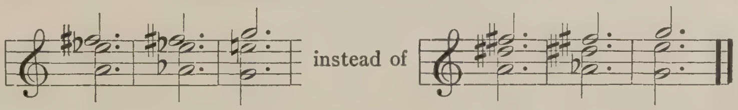
Ex. 216.



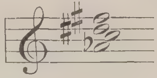
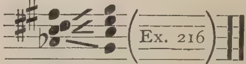
*1) The *lowered* step generally lies in *bass*, and one of the raised steps in *soprano*; comp. Ex. 212, Note *3). — *2) This irregular interval-progression (*c–d♯*) is allowed, into an *altered* step; especially in an inner part. — *3) Ex. 211, meas. 3. This irregular inversion is less objectionable in this mixed chord. — *4) The resolution into the dom.-*seventh* is possible. Comp. Ex. 199, Note *3); and Ex. 206, Note *1).

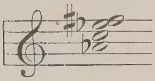
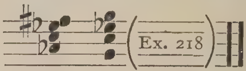
---

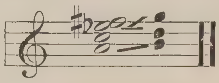
285. The raised 2nd step, in these Second-class mixed chords, is often erroneously written as if it were the *minor mediant:* in C major, *e♭* instead of *d♯*. See **Mendelssohn,** No. 34, measures 38 and 39:



See also No. 42, measure 3 (*d♭* for *c♯*); and No. 48, meas. 14 (*e♭* for *d♯*). This common error is probably owing to an instinctive reluctance to associate *d♯* with *a♭*, when *e♭* appears to be so much more plausible; or it may also be owing to a thoughtless confusion of the major and minor modes. C *major* cannot have an *e*♭, as that is the very tone which distinguishes it from C *minor*, as seen in Ex. 198, meas. 1, 2. The difference lies simply in the *progression* of the chord, to which, in analogy with par. 267*e*, the notation should conform.

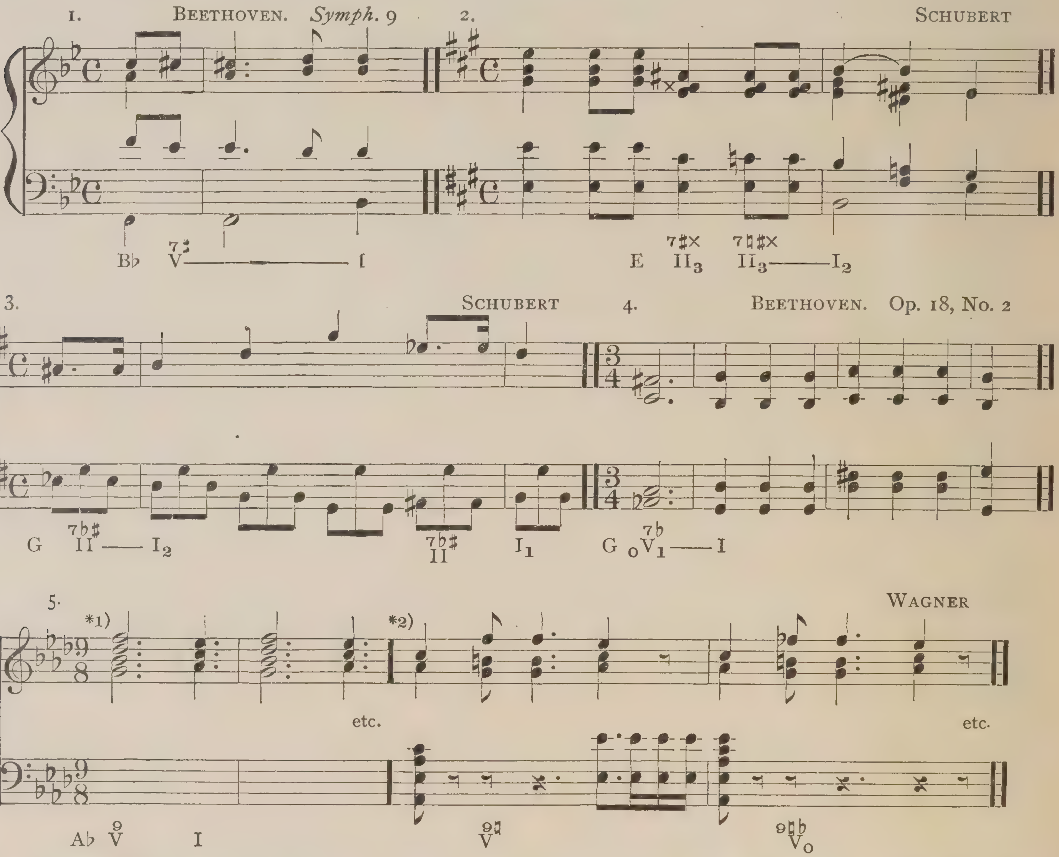
Thus:  is a *C major* chord, and progresses to the I of C major 

But  is a *C minor* chord, and progresses to the I of C minor 

If in *G major*, then, of course, the *e*♭ will be right: 

Additional examples of the mixed chords in major:

Ex. 217.


1. BEETHOVEN. *Symph.* 9
2. SCHUBERT
B♭ V 7♮ I
E II₃ 7♯× II₃ 7♮♯× I₂
3. SCHUBERT
4. BEETHOVEN. Op. 18, No. 2
G II 7♭♯ I₂ II 7♭♯ I₁
G ₀V₁ 7♭ I
5. WAGNER
*1) *2)
etc.
etc.
A♭ V 9 I V 9♮ V₀ 9♮♭

*1) "Rheingold," 1st Scene: the harmony employed where the Rhine-daughters chant their exuberant admiration of the glowing gold. — *2) The modification of the same harmony in the final Scene of the opera, where they bewail the loss of the stolen treasure. See Ex. 318, No. 7, in which the most extreme distortion of this same harmony appears (in suggestion of intense hatred).

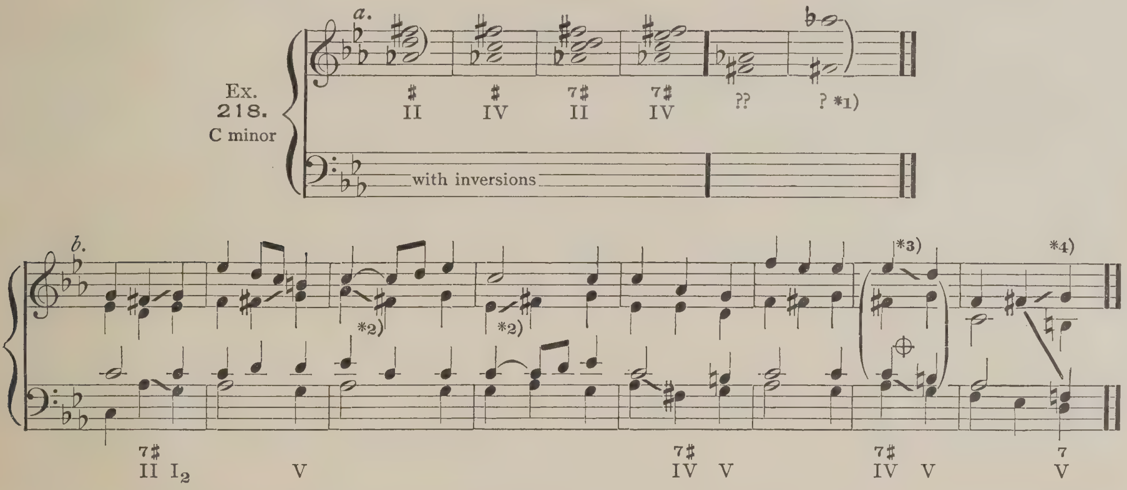
B. Mixed Chords in Minor.

286. There is only one group of mixed chords in minor. They contain a **raised 4th step,** and are consequently **Second-class** chords (par. 271*b*). The augm. 6th results from the association of the raised 4th step with the original dom. leading-tone.

Compare these chords with the corresponding altered chords (with *raised* 6th step), in Ex. 204*a*.

They resolve into either the I or V. Thus:

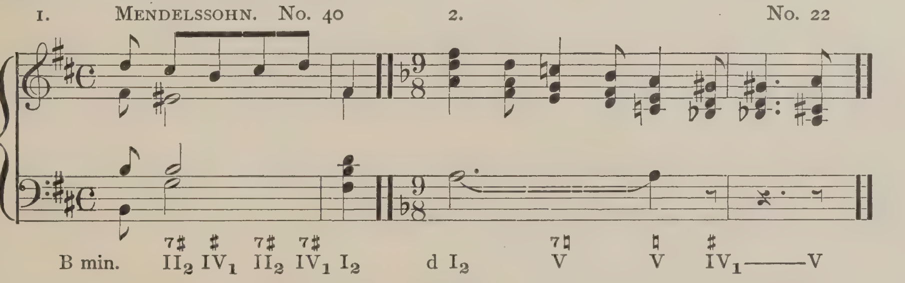
Ex. 218. C minor



*1) The inversion of the augm. 6th is *least* objectionable in these mixed chords of minor. — *2) These irregular interval-progressions are allowed. Ex. 216, Note *2). — *3) The resolution of this (the most frequent) form of the $\overset{7\sharp}{\mathrm{IV}}$ *into the V* involves inevitable parallel 5ths. Therefore it is wise to progress, as a rule, *into the I.* — *4) Compare Ex. 206, Note *1).

Additional examples of the mixed chords in minor:

Ex. 219.



FUNDAMENTAL PRINCIPLES.

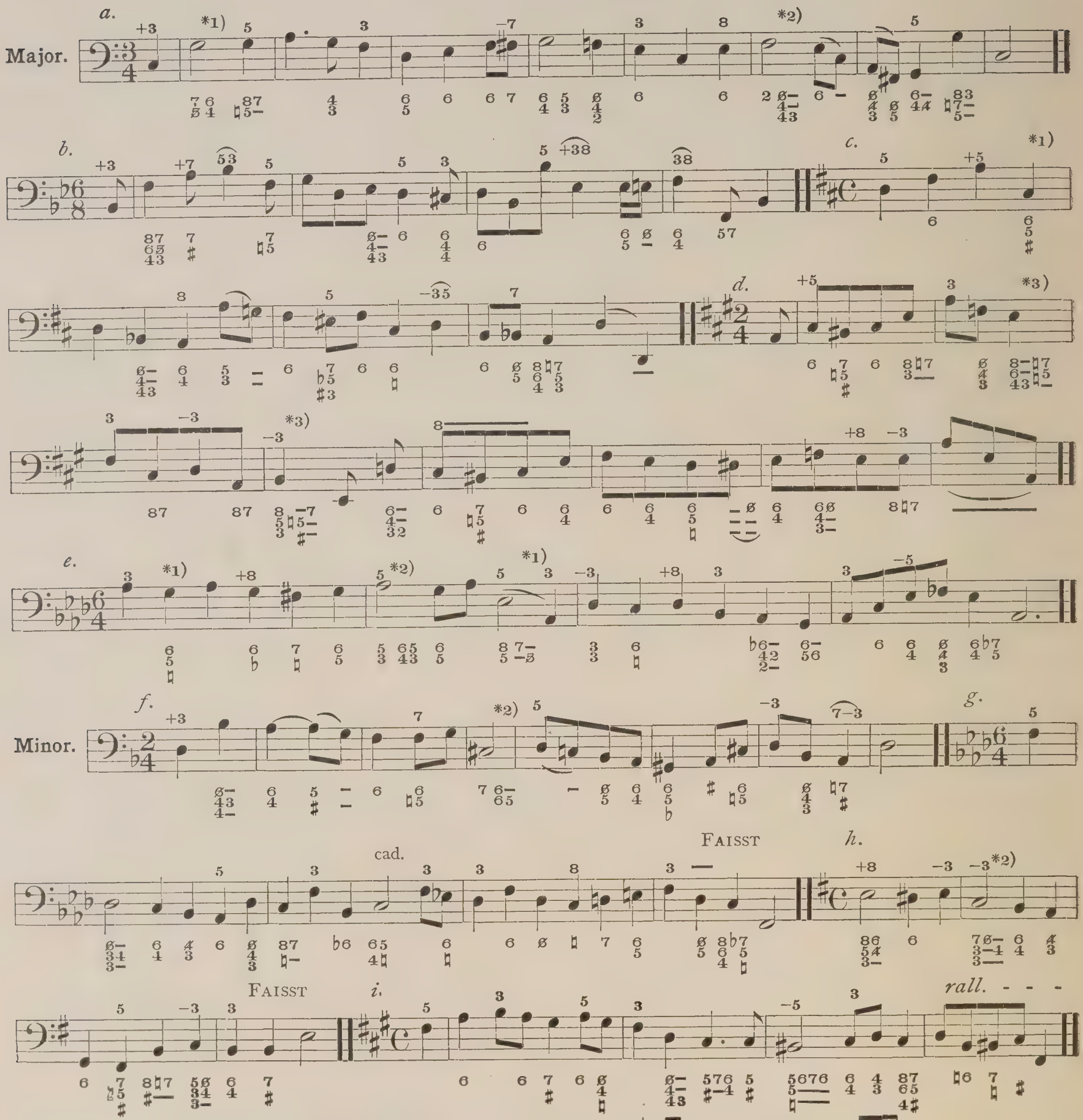
All mixed chords contain the interval of an augm. 6th.

This interval must not be inverted, unless the tones lie more than an octave apart.

There are two kinds of mixed chords in major: the *discords* of the *First class,* with raised 2nd step; and Second-class chords with lowered 6th step, combined with the raised 4th, or 4th and 2nd, steps.

All major mixed chords, and most of the minor ones, resolve into the tonic chord. The mixed chords of minor belong to the Second class, and contain the raised 4th step.

EXERCISE FORTY-THREE.


a.
Major.
b.
c.
d.
e.
f.
Minor.
g.
cad.
Faisst
h.
Faisst
i.
rall. - - -

*1) Do not overlook the resolution of the seventh. — *2) Rhythm ♩ ♫—. *3) Rhythm ♫♬—.

These basses must be carefully analyzed, as usual.

Add **Original phrases.**

PART III.

MODULATION.

SECTION 1. KEY-RELATIONS.

287. Modulation treats of the process by which a transition is made *from one key or mode into another.* This transition is effected, in general, by inflecting one or more tones of the first scale upward or downward, *whereby the location of the half-steps is changed,* and, consequently, the harmonic and melodic relations of the original scale-tones and chords are changed to conform to a new tonic basis.

288. All the keys in music have the same rotatory series of seven letters, *a, b, c, d, e, f, g, a, b,* etc. The difference between them is, that they start at different points in this series of letters, and therefore contain different sets of accidentals, for the adjustment of the scale-spaces. Review, thoroughly, par. 15, with reference to the origin of key-signatures.

289. The first requirement in the practice of modulation is a thorough knowledge of the

RELATIONSHIP BETWEEN THE KEYS,

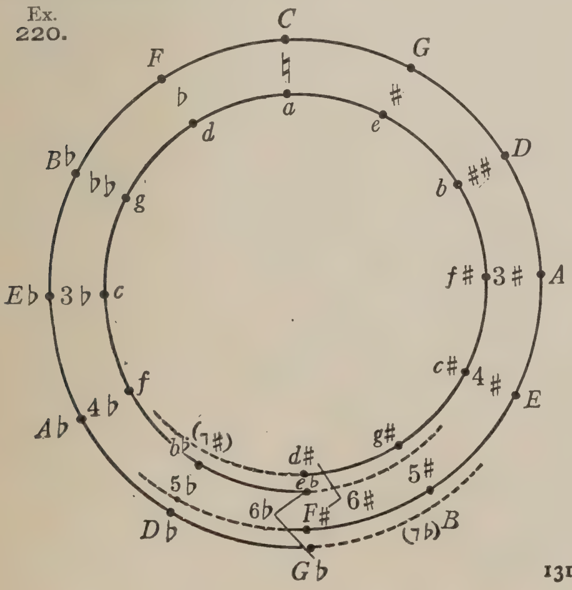
that is, their relative *location* in the modulatory system. For it is this which determines the quality of the various changes of key.

290. The relation of key to key agrees fundamentally with the relations between the corresponding triads. But in general it is more convenient to define the degrees of relationship, first, and chiefly, according to *the number of tones which the scales possess in common;* and second, according to certain important *coincidences*, or points of contact.

291. The notation of the letters, and, consequently, the number of common tones, is indicated by the *signature* of each scale; therefore the degree of key-relation becomes directly apparent by simply **comparing the signatures.** (This refers to minor as well as major signatures.)

292. The relative location of the keys, and their signatures, are exhibited in the following chart of the modulatory system.

Ex. 220.



(Strictly speaking, the chart should present the keynotes in *vertical* order, as in Ex. 9, and at the head of Exercise 47. But for convenience they are arranged in a *circle*, because at the 12th degree the tones come so nearly together, — *f*♯ and *g*♭, — that in musical practice they are treated as identical.)

Explanation. — The outer circle represents the major keys, the inner one their relative minors.

N.B. **Hereafter a capital letter will indicate the major, and a small letter the minor key.**

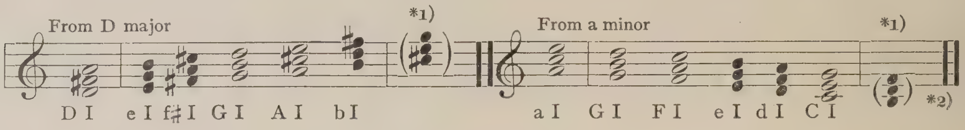
The signatures within the circles belong to both the major and the minor key. The distance from key to key, along either circle, is a *perfect fifth, or harmonic degree.* Comp. par. 12. This proves that *key*-relations are, fundamentally, magnified *tone*-relations. The difference in the size of the right and left half-circle is owing to the *actual* difference between *f*♯ and *g*♭; it is here a trifle exaggerated.

293. The degree of relation between one key and another is indicated, *fundamentally*, by their distance apart in the above circles of harmonic degrees.

It will be seen that each key is surrounded by *five attendant* keys. These are called the *five next-related keys*, and they are obviously directly accessible. For instance, the five adjacent keys of C major are G, e, a, d, F; of A major, D, b, f♯, E, c♯. They are most quickly defined by comparison of signature, as all agree most nearly with that of the principal key. See Ex. 222, Note *1).

The five next-related keys of any given key are also definable as those whose *tonic triads* occur in the scale of that key, — in minor, in the descending melodic scale. Thus:

Ex. 221.



*1) Not the tonic triad of any key. — *2) Comp. these tables with Ex. 220.

294. The next-related keys are designated as follows:

1st, the *dominant* key;
2nd, the *subdominant* key;
3rd, the *relative* key;
4th, the *relative of the dominant* (dominant-relative); and
5th, the *relative of the subdominant* (subdominant-relative). Thus:

Ex. 222.

		Of C:	Of a:	
Dominant	key	G,	e,	
Subdominant	"	F,	d,	
Relative	"	a,	C,	*1)
Dominant-relative	"	e,	G,	
Subdominant-relative	"	d.	F.	

*1) The signatures of the 5 next-related keys do not differ from that of the principal key by more than *one* accidental. The relative key has the *same* signature as the principal key; the dominant (and dom.-rel.) have one sharp more, or one flat less; and the subdom. (and its relative) have one sharp less, or one flat more. Note the manner of indicating the major keys with capitals, and the minors with small letters.

---

295. Besides these five keys, there are a few others which, on account of certain important harmonic coincidences, can claim a remote degree of connection with the principal key, and can be reached more readily than other, entirely foreign, keys. They are called the *remotely-related keys*, and will be explained in due time.

GENERAL RULE OF MODULATION.

296. A modulation may be made *directly* into any one of the five next-related keys. Into the remotely-related keys a modulation may be made *directly*, under certain conditions. Foreign keys can, as a rule, be reached only *indirectly*, through the intermediate related keys.

EXERCISE FORTY-FOUR.

Make a table, in letters (large and small), of the five next-related keys of every major and minor key, with signatures as follows. Reference to Ex. 220 should be avoided as much as possible:

Prin. key		Dom. key		Subdom.		Relative		Dom.-rel.		Subdom.-rel.	
C	♮	G	♯	F	♭	a	♮	e	♯	d	♭
c	3♭	g	2♭	f	4♭	E♭	3♭	B♭	2♭	A♭	4♭
G	♯	D	2♯	C	♮	e	♯	b	2♯	a	♮
g	2♭	d	♭	c	3♭	B♭	2♭	F	♭	E♭	3♭

and so forth.

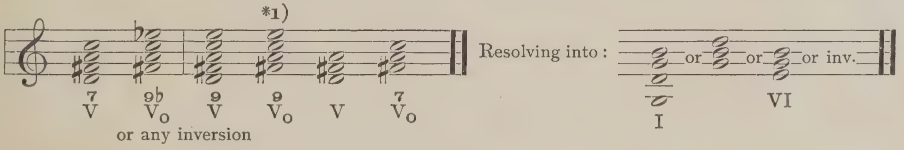
SECTION 2. THE PROCESS OF MODULATION.

297. The transition from one key into another is effected most naturally and legitimately *through the* **leading-tone** *of the desired key;* or, in other words, through those chords which contain the leading-tone.

298. The leading-tone occurs in all the **dominant** chords (First-class concords and discords), and it is through these that the desired key should be entered. The best among them for this purpose are: **the $\overset{7}{V}$** (which is almost absolutely characteristic of its scale); and **the chord of the diminished seventh** ($\overset{9}{V_0}$), which, as seen in Ex. 198 — Note *3), — can be used equally well in major as altered chord, and in minor as legitimate chord. (Review par. *239c.*)

The modulation *into* G major, for example, would be made through any of the following modulatory chords:

Ex. 223. Into G major

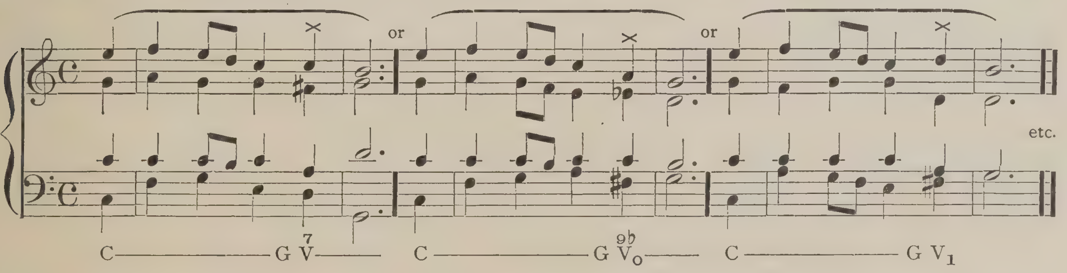


*1) The $\overset{9}{V_0}$ may, of course, be used with the *major* ninth, but it is more difficult to handle.

These same modulatory chords would also be used in entering *g minor* (as well as *G major*). Because, as is obvious, the modulatory act is directed toward the *tonic*, or *keynote*, which is the same in both modes. See also par. 107.

299. This important rule is illustrated in the following modulations from C major into G major (the dom.-key):

Ex. 224.



The sign ⨯ indicates where the entrance into the new key (the "modulation") is effected.

300. *a.* Modulations that are thus made with a **First-class** chord, are the most direct.

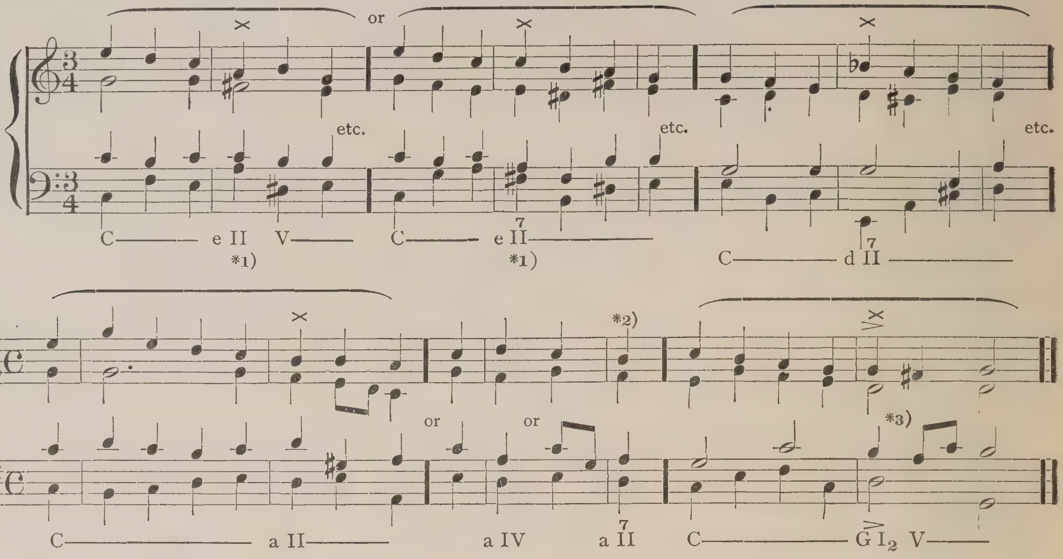
b. But it is also possible to enter the desired key through any one of its **Second-class** chords (II–IV–$\overset{7}{\text{II}}$–$\overset{7}{\text{IV}}$), because these resolve directly into dom.-chords. Such modulations are less abrupt.

c. Of the remaining class of chords, *i.e.*, the tonic class, only *one single form* can be used in effecting a modulation; namely, the **tonic 6-4 chord** (I_2) of the desired key; and this should stand on an *accented* beat, or accented fraction.

It is contrary to the fundamental principle of modulation, to enter a new key with any one of its *tonic* chords; but the *accented* I_2 is an important exception. Review par. 186*a*, *b*, — from which it appears logical to regard the *accented* I_2 as equivalent to a dominant chord.

These more gradual transitions are illustrated in the following modulations from C major:

Ex. 225. *4)



*1) The new key is *indicated* by its 2nd-class chord; but the modulation is evidently not *complete* until the dom. chord appears. — *2) This is the "ambiguous 7th" (par. 235). — *3) The I_2 must be *accented* in order to exert modulatory force. — *4) The examples hereafter will be mostly in continuous phrase-form, — not separate measures.

---

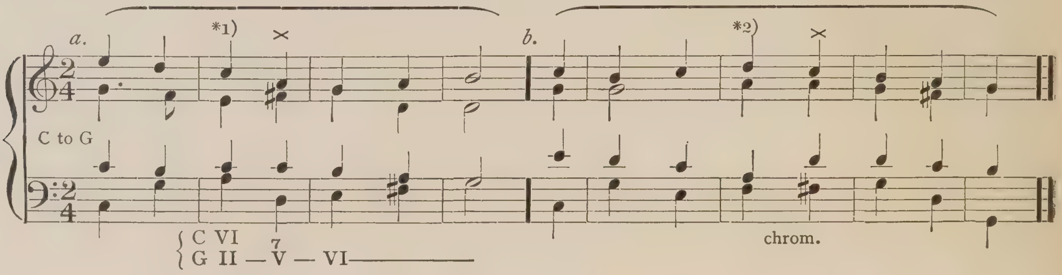
301. The act of modulation consists mainly in *obtaining the desired key*. But it is scarcely less important to decide at what point, — upon what chord, — the original key *may best be abandoned*.

a. If the last chord of the original key is one which belongs also to the prospective key (in another harmonic meaning, of course), the modulation will be gradual, and there need be no *chromatic inflection*. Consequently, such are called **Diatonic** modulations (Ex. 226*a*, *c*). Each chord-movement, before, during and after the change of key, pursues the track of a diatonic scale.

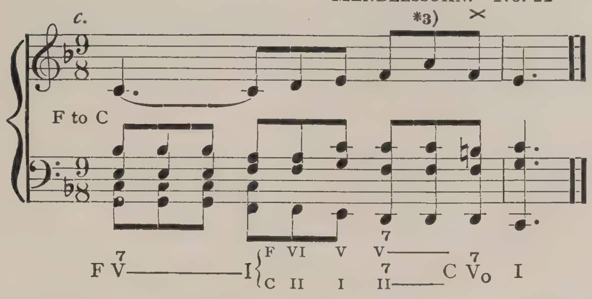
b. If, on the contrary, the last chord of the original key does *not* belong to the coming key, the modulation must be **Chromatic.**

That is, a chromatic inflection will be necessary in one or more of the parts (Ex. 226*b*), in order to gain the new scale. These modulations are more striking, and usually more effective, than the smoother diatonic species.

Ex. 226.



MENDELSSOHN. No. 22


c.
*3)
F to C
F V7———I
F VI V V7———
C II I II7——— C V7₀ I

*1) This chord, the last one in C major (as VI), may also be defined, prospectively, as the II of G. Consequently, the progression into the following dominant chord of G is as smooth and natural as if no change of key were taking place.

*2) Here, the last chord in C (the II) does *not* belong to the coming key (G), and therefore the chromatic change of *f* into *f*♯ (in bass, in this case) is necessary. — *3) Not only this last chord but also the three preceding chords belong to *both* keys. The change of key is made almost insensibly.

FUNDAMENTAL RULE OF MODULATION.

302. The simplest and most comprehensive rule, however, is, that *it is best to leave a key at one of its* **Tonic chords** (either I or VI); because these inactive harmonies, especially when accented, convey the impression of fulfillment and completion, — leave nothing unresolved or unfinished in their key, — and therefore suggest a digression into a new harmonic circle, rather than hinder it.

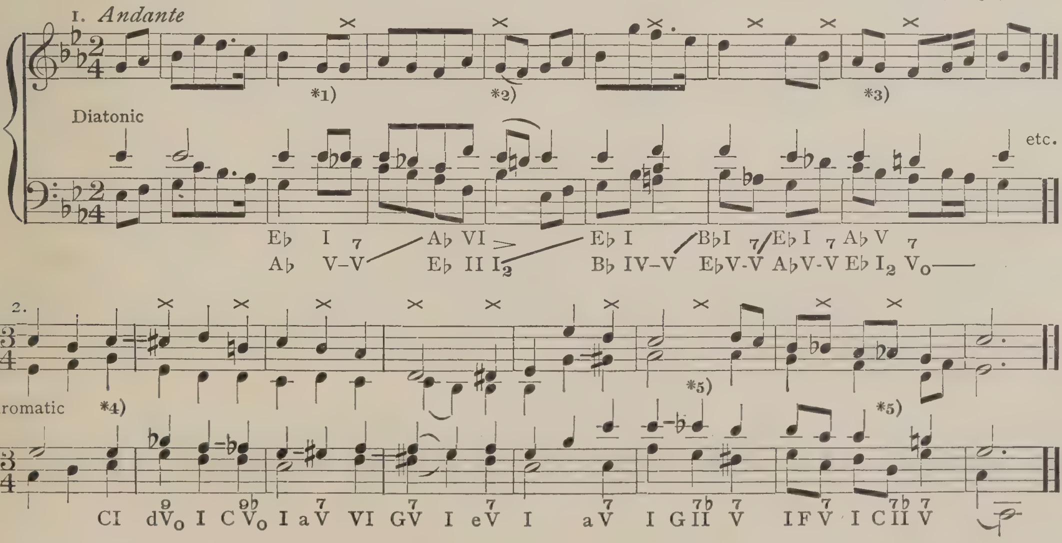
This rule is illustrated in Ex. 224, Ex. 225, and Ex. 226*a* (*c*?), — in all of which the last chord of the first key is either the I, I_1, or VI.

303. If the tonic chords at the close of the first key belong also to the coming key, the progression into the modulatory chord of the new key will be *diatonic* (par. 301*a*); otherwise the progression must be *chromatic* (par. 301*b*). The rules for chromatics will be found in par. 269*e*; Ex. 198, Notes *6) and *7); Ex. 206, Note *1).

The following periods illustrate this fundamental rule, both in diatonic and chromatic operation:

MENDELSSOHN

Ex. 227.


1. Andante
Diatonic
*1)
*2)
*3)
etc.
E♭ I 7 A♭ VI E♭ I B♭ I 7 E♭ I 7 A♭ V 7
A♭ V–V7 E♭ II I₂ B♭ IV–V E♭ V-V A♭ V-V E♭ I₂ V₀———
2.
Chromatic
*4)
*5)
*5)
C I d V9₀ I C V9♭₀ I a V7 VI G V7 I e V7 I a V7 I G II7♭ V7 I F V7 I C II7♭ V7

*1) The last chord of the old key is everywhere, excepting at Note *3), a tonic chord, and in every case common to the new key; hence, the modulations are diatonic. — *2) Par. 300*c*. — *3) The last chord in A♭ here appears to be a V instead of I. It is, however, plausible to regard the *preceding* chord, on the *accent*, as the one which concludes A♭ (as I). In this case the *unaccented* I_2 begins the following key. — *4) Here the I of the old key does not appear in the new key, hence the chromatic progressions. — *5) Par. 300*b*.

FUNDAMENTAL PRINCIPLES.

Key-relations are defined, fundamentally, by *signature*.

The five next-related keys are those whose signatures most nearly agree with that of the principal key.

It is best to abandon a key at one of its *tonic chords* and enter the new key through any of its *dominant*, — or second-dominant, — chords; rarely through the *accented* I_2.

A modulation is diatonic when the last chord of the first key belongs also to the coming key, — otherwise it must be chromatic.

EXERCISE FORTY-FIVE.

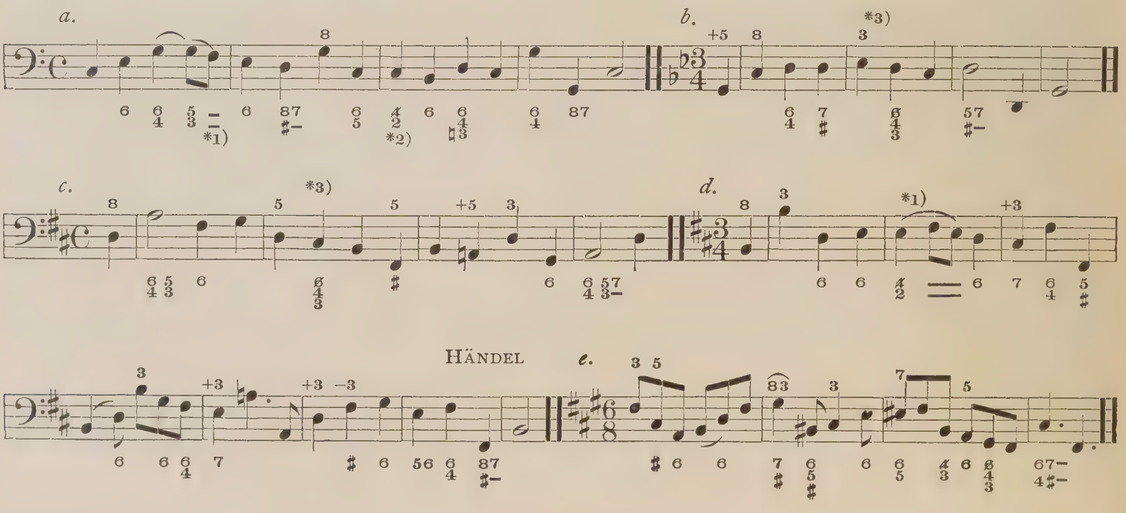
A. Play the following chord-progressions on the piano, in the usual manner (the *bass alone* in the left hand):

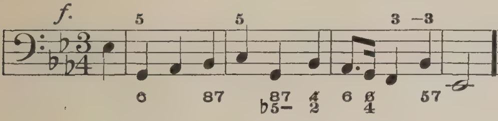
$$\text{C I—F }\overset{7}{\text{V}_1}\text{—I} \;\|\; \text{C I—G V—I} \;\|\; \text{C I—a }\overset{7}{\text{V}}\text{—I} \;\|\; \text{C I—e }\overset{7}{\text{II}_1}\text{—V—I} \;\|$$

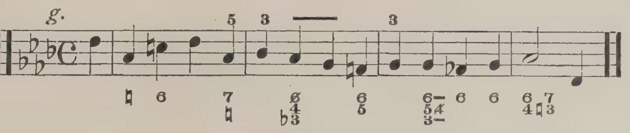
$$\text{C }\overset{3}{\text{I}}\text{—}\overset{7}{\text{V}}\text{—VI—d }\overset{9}{\text{V}_{\text{O}}}\text{—I} \;\|\; \text{G I—C }\overset{7}{\text{V}_3}\text{—}\text{I}_1\text{—G }\overset{7}{\text{V}}\text{—I} \;\|\; \text{a }\overset{3}{\text{I}}\text{—}\overset{7}{\text{V}_1}\text{—I} \;|\; \text{e }\overset{>}{\text{I}_2}\text{—}\text{IV}_1\text{—V} \;|\; \overset{\frown}{\text{I}} \;\|$$

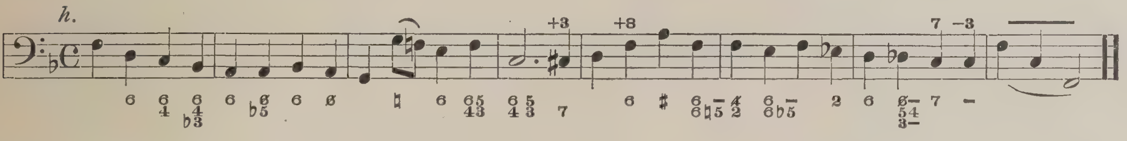
$$\text{F I—}\text{IV}_1\text{—}\text{I}_2\text{—d }\overset{9}{\text{V}_{\text{O}}}\text{—I—g }\overset{7}{\text{V}_{\text{O}}}\text{—I} \;\|\; \text{b }\overset{8}{\text{I}}\text{—V—I—A }\overset{7}{\text{II}_3}\text{—}\overset{7}{\text{V}_1}\text{—I} \;\|.$$

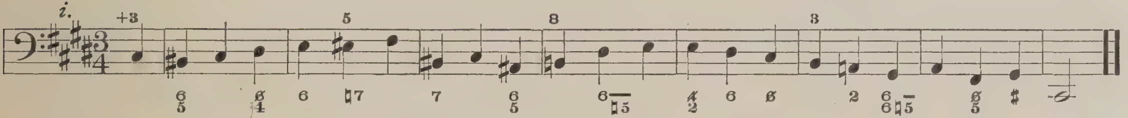
B. Modulations into **next-related** keys. All changes of key should be marked, and their relations analyzed; also the chords used in modulating. **Do not neglect the accidentals.** The accidentals make the modulations, — see par. 288.











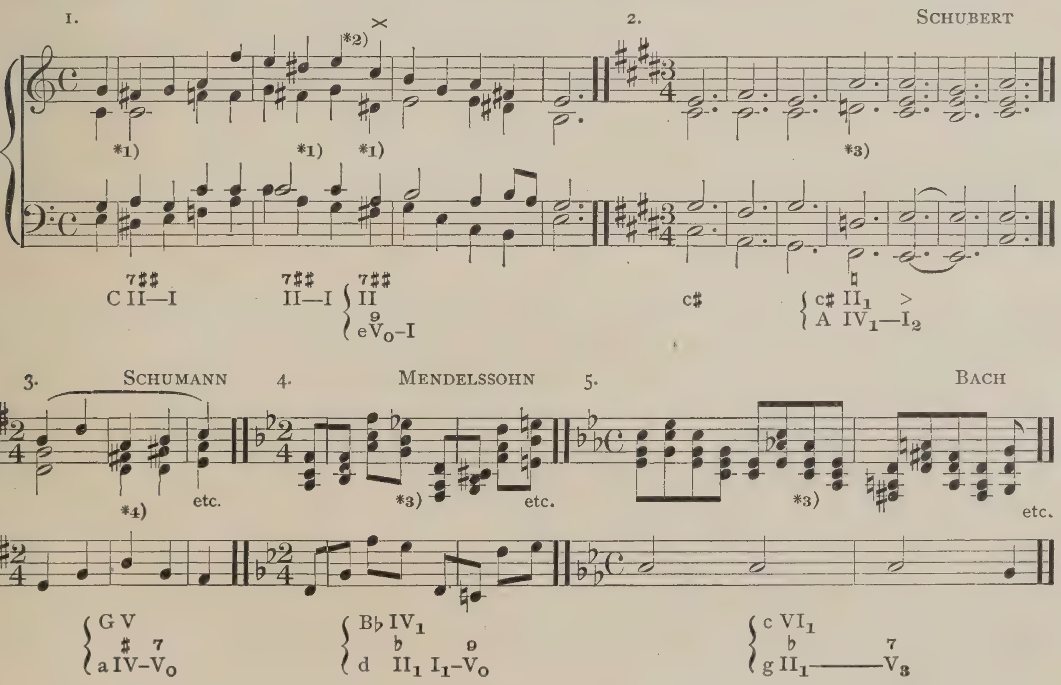
*1) Upper parts held. — *2) Exercise 42, Notes *1) 2) 3). — *3) Par. 269*e*.

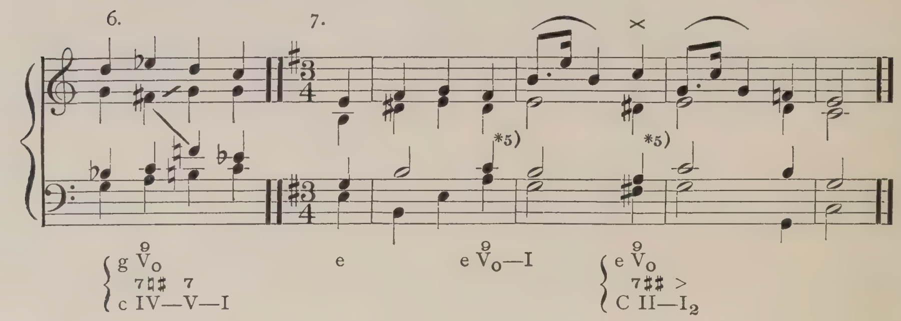
C. Add a large number of **Original phrases,** possibly periods also.

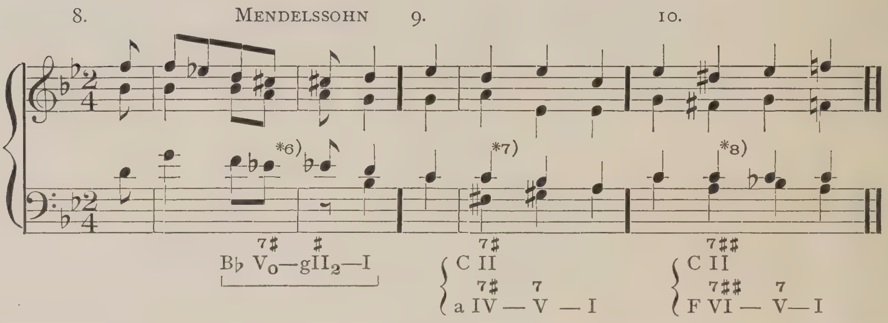
ALTERED CHORDS, AS MODULATORY MEDIUMS.

304. It is evident that the altered chords, standing as they do upon the boundary-line between different keys, must constitute a very natural and efficient medium between the keys to which they *actually* belong (as *altered* chords), and the key or keys which they *appear* to represent (as *legitimate* chords). The distinction is defined in par. 267*d*, *e*, which see. This interesting phase of modulatory transition is illustrated in the following examples:

Ex. 228.


1.
*2)
*1)
*1)
*1)
C II—I
II—I
II
e V₀–I
2.
SCHUBERT
*3)
c♯
c♯ II₁ >
A IV₁—I₂
3.
SCHUMANN
*4)
etc.
G V
a IV–V₀
4.
MENDELSSOHN
*3)
etc.
B♭ IV₁
d II₁ I₁–V₀
5.
BACH
*3)
etc.
c VI₁
g II₁——V₃





*1) This altered chord (with raised 2nd and 4th steps) is purposely used three times in succession; twice as unmistakable *altered* chord in *C*, and then, at ⨯, as *legitimate* chord in *e*. — *2) This modulation might, it is true, be demonstrated according to the fundamental rule (par. 302). But it is evident that the altered chords in the preceding measures were the incentive to the modulatory chord chosen for the final transition. The following example will also admit of simpler analysis; but the rest, from No. 3 to No. 10, cannot be accounted for in any other way than as modulations *through altered chords*. — *3) Lowered 2nd step. — *4) Here the transitional chord is first legitimate (in *G*), and is then transformed into an altered chord (with raised 6th step) in *a* minor, — as the *progression* proves. — *5) This is exactly (and purposely) the reverse of No. 1. The transitional chord is *first legitimate* in *e*, and then becomes, at ⨯, an *altered* chord in *C*. — *6) The transitional chord is mixed, in both keys. — *7) Altered in *both* keys, — raised 4th step in *C*, raised 6th step in *a* minor. — *8) Raised 2nd and 4th step in *C*, used as raised tonic and 6th steps in *F*.

EXTRANEOUS MODULATIONS. — *1. Through Next-related Keys.*

305. A modulation is extraneous when it extends *past the next-related keys;* or, in other words, into a key whose signature differs by more than one accidental from that of the abandoned key.

The *fundamental* rule for such remote modulations is, to progress in *successive stages*, *through the intermediate next-related key or keys, along the lines of the "circle of keys";* that is, through the *signatures* which occur successively in the direction of the ultimate key.

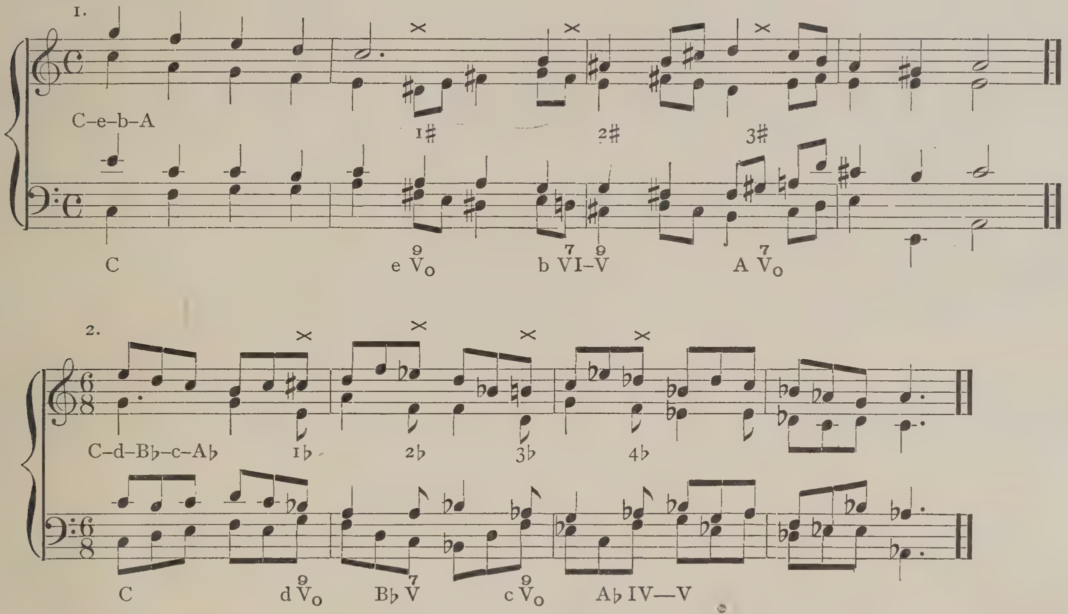
For instance, the modulation from *G* major (1 sharp) into *A* major (3 sharps) would be made through the key of 2 sharps, thus: *G—D—A*, or *G—b—A*.
*1) *2)

*1) It is not necessary to adhere to the same *mode:* on the contrary, it is advisable to alternate (more or less regularly) between major and minor, as at *2).

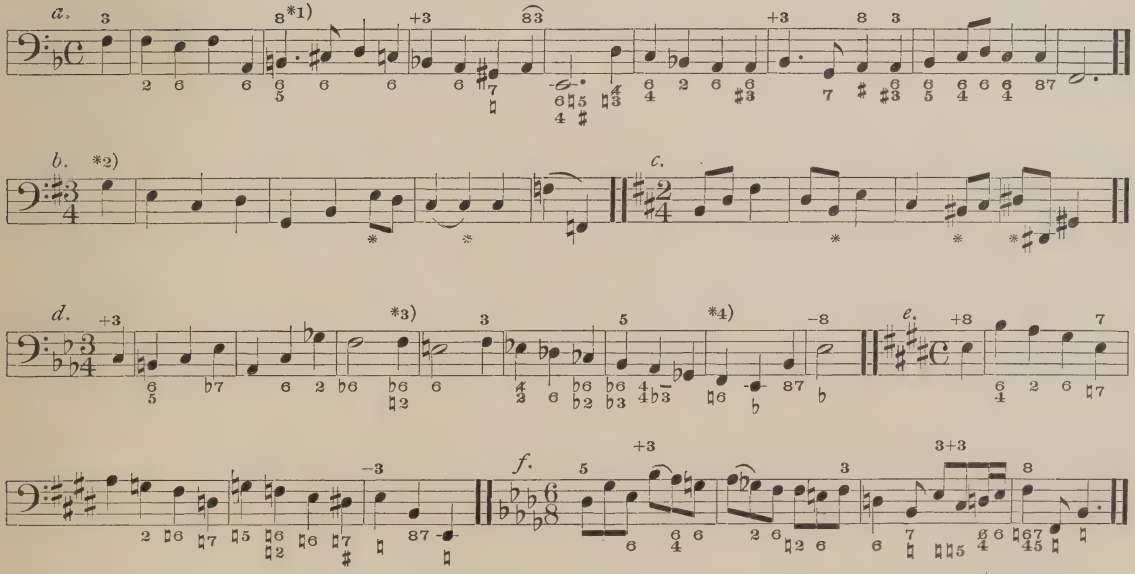
Or from *C* (natural scale) into *A♭* (4 flats), through 1, 2 and 3 flats, thus: *C—F—B♭—E♭—A♭*; or *C—d—B♭—c—A♭* (Ex. 229 — 2); or *C—F—g—E♭—A♭*, etc.

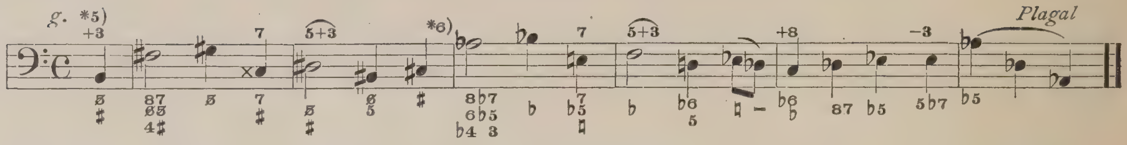
And from *E* (4 sharps) into *b*♭ (5 flats), through 5♯, 6♯ or 6♭, thus: *E—B—F*♯ or *G*♭*—b*♭; or *E—g*♯*—F*♯ or *G*♭*—b*♭, etc. For illustration:

Ex. 229.


1.
C–e–b–A
1♯
2♯
3♯
C
e V₀ 9
b VI–V 7 9
A V₀ 7
2.
C–d–B♭–c–A♭
1♭
2♭
3♭
4♭
C
d V₀ 9
B♭ V 7
c V₀ 9
A♭ IV—V

EXERCISE FORTY-SIX.


a.
*1)
b.
*2)
c.
d.
*3)
*4)
e.
f.



*1) Altered II^{7} of *F* and altered IV^{7} of *d*. All the modulations in this bass are made through altered chords, and must be analyzed accordingly. — *2) Unfigured bass (par. 264*B*). A modulation occurs at each *. — *3) During the first three measures this bass modulates in regular degrees "downward," *i.e.*, adding a new flat each time. At *3), instead of going on into 6 flats it *turns back* into 4 flats, and then resumes the original downward direction. This is done to avoid the monotony of several successive changes in the same direction. At *4) the monotony is again broken by the "horizontal" modulation into the relative key. — *5) The signature (5♯) is omitted, because of the subsequent modulation into flat keys. — *6) Here the *notation* is changed from 7♯ to 5♭; the *key* is regarded, in musical practice (and on the keyboard) as the same.

Add **Original phrases.**

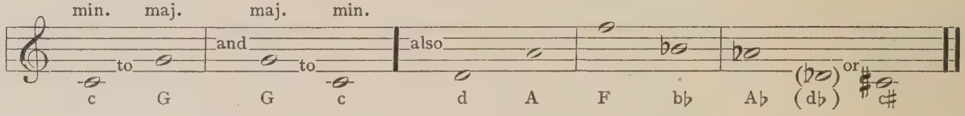
EXTRANEOUS MODULATIONS. 2. *Direct.*

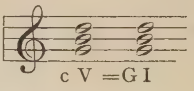
306. There are cases where, contrary to the general rule, the remote key is reached *directly*, instead of through successive intermediate keys. The most common of these is a modulation called, in this book,

THE MODULATORY STRIDE.

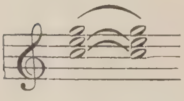
307. The "stride" is a harmonic degree (perfect 5th) *downward* from a *major* keynote, or *upward* from a *minor* keynote, with *change of mode*. In other words, it is the subdominant-minor from major, and (exactly reversed) the dominant-major from minor. Thus:

Ex. 230.



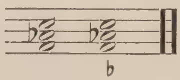
The keys lie four degrees apart (*c*—G, 3♭—♯), but the stride-relation is *quite as intimate as any next-related key*, — because of the important harmonic coincidences; chiefly that of the I and V:  Therefore, this modulation can be made with the same ease as those between next-related keys. The formula to be memorized is: any perfect fifth, of which the *upper* tone stands for a *major* keynote, and the lower for a minor one (Ex. 230), indicates the "stride."

308. The stride is generally made according to the fundamental rule, leaving the first key at its *tonic chord* (the I, but *not* the VI, in this case), which is at the same time invariably a principal triad of the desired key. Thus, in the stride *C*—*f*, for instance:



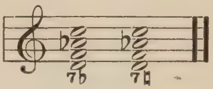
C I = f V

and



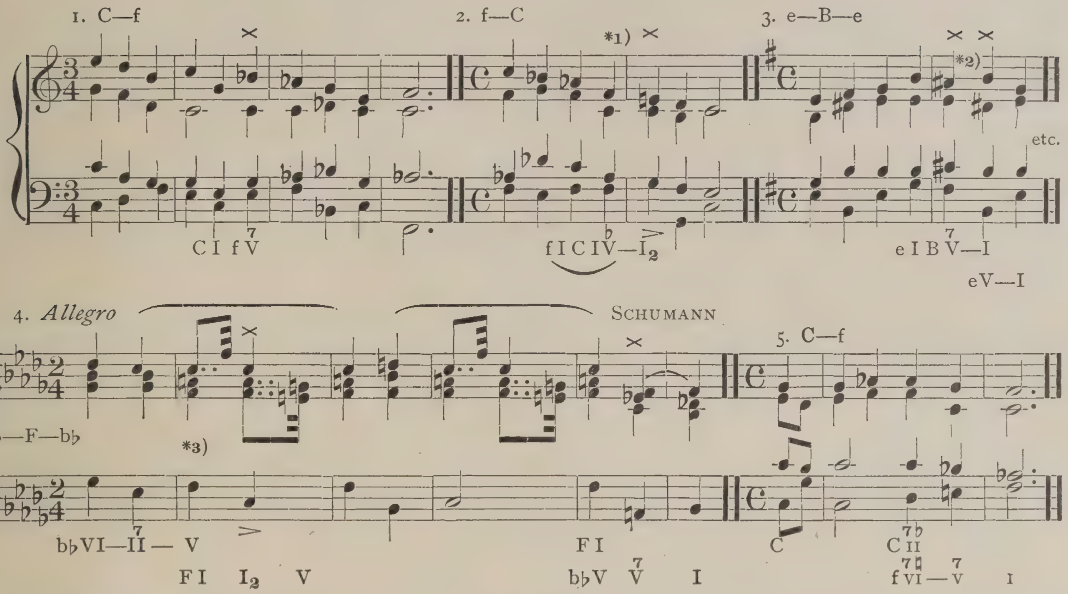
f I = C IV

but possibly also



C II = f VI

Ex. 231.



*1) An altered chord (lowered 6th step of *C*). — *2) The facility of the stride is strikingly shown in this example, where it is made forward and backward in three beats. When, as here, the I of the old key is *at the same time the dominant chord of the new one*, there is no need of delaying the modulation. — *3) In this exceptional example of the stride, the order of chords is reversed; *i.e.*, the first key is abandoned at its V, and the new key is entered through the I.

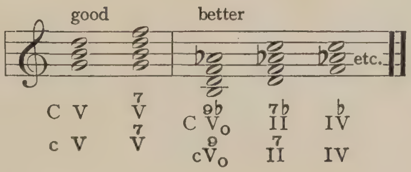
MODULATION TO THE OPPOSITE MODE. (EXCHANGE OF MODE.)

309. The change called, in this book, the opposite mode, is, strictly speaking, not a change of *key*, but of *mode only*, — for example, from *C* major to *c* minor, or reversed. It is not to be confounded with the *relative* major, or minor, which is a wholly different key.

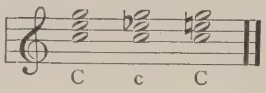
The opposite mode is defined in par. 101. By signature, there is a difference of three degrees between the opposite modes (*E—e*, 4♯—♯) *in location*, though in *relation* they are practically identical. This appears to place each minor key at two different points in the modulatory system, which may be interchanged or not, at option. Thus, *c* minor may represent the locality (tonality) of "three flats," or it may pertain to the region of *C*, as transient modified form of the latter. (This has been its significance in all foregoing examples.)

310. *a.* The modulation to the opposite mode, either way, is generally made through *dominant* chords, which are mostly common to both modes; see Ex. 68, Note *1); par. 202; 229; Ex. 198, Note *3).

b. But the altered chords with *lowered 6th step* (in major) are also available, and extremely convenient. Thus:



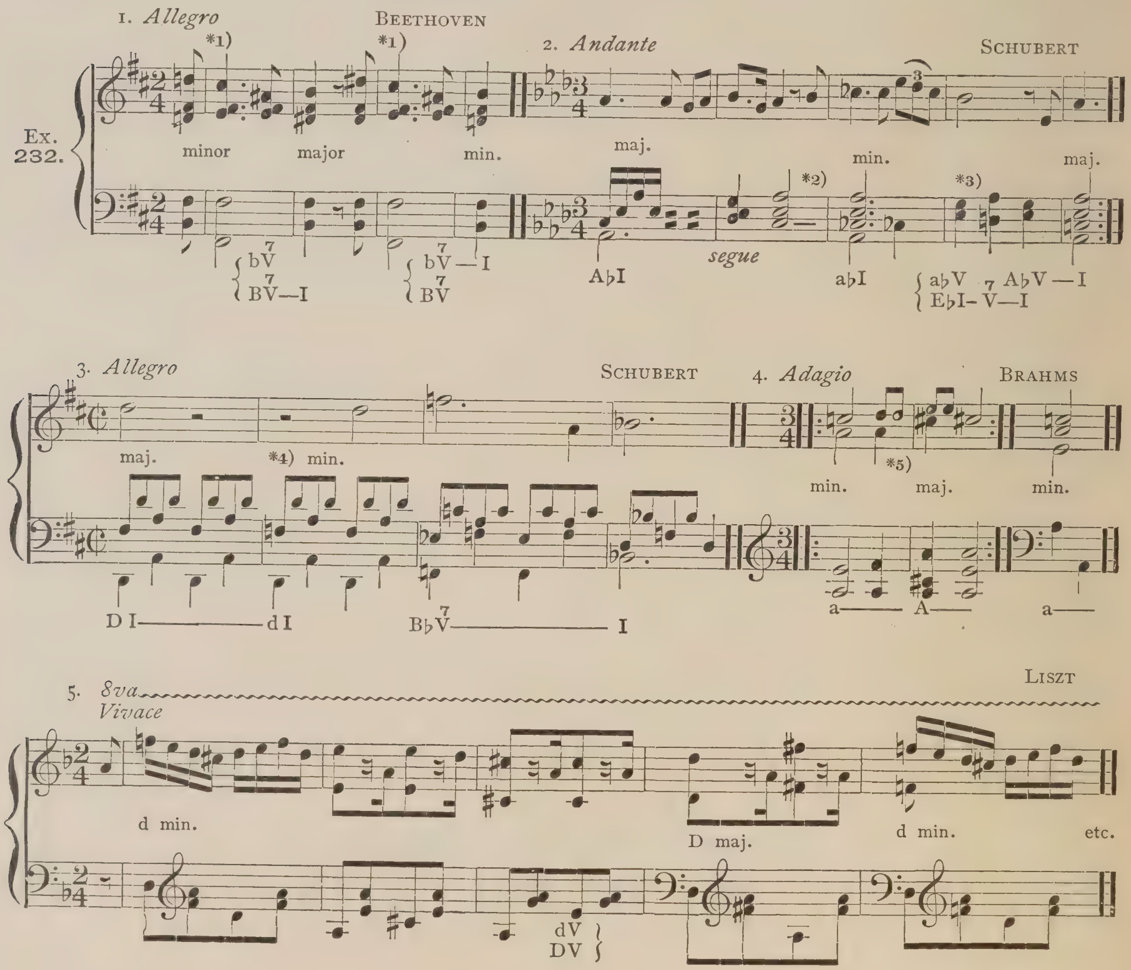
c. Or the modulation may be made by a direct *chromatic* change from the one tonic triad to the other. Thus:



311. This modulation is very different from the stride, and is far from being as natural and easy as the latter. The change from minor into major is always good, but from major into minor is much more difficult. The major mode is often substituted at the *very end* of minor pieces, in order to obtain a stronger perf. cadence (on the *major* tonic); see **Bach,** "Well-tempered Clavichord," prelude and fugue Nos. 2, 4, 6, etc., the last measure of each. It is also frequently used, either way, for the sake of striking contrasts.

312. When the *dominant* chords are used for the mod. into the opposite mode, they should appear on accented beats, and be *prolonged* as far as the rhythm will permit, so as to separate the conflicting mediants (maj. and min.) as widely as possible.

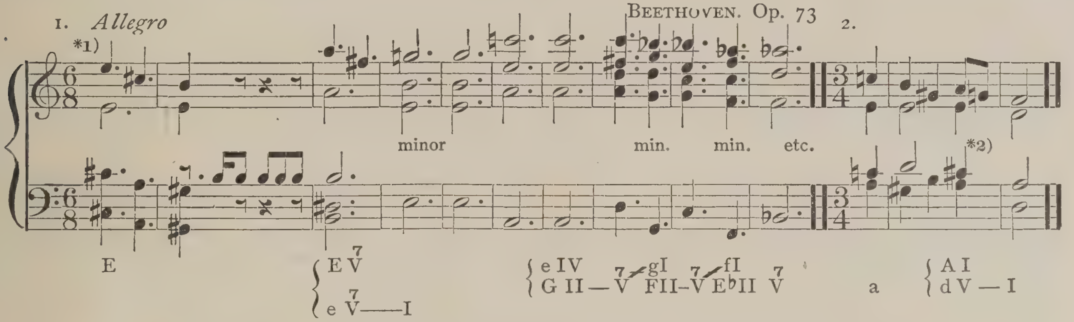
Ex. 232.


1. Allegro
Beethoven
*1)
*1)
minor
major
min.
bV7
BV7—I
bV7—I
BV7
2. Andante
Schubert
maj.
min.
maj.
*2)
*3)
A♭I
segue
a♭I
a♭V 7 A♭V—I
E♭I- V—I
3. Allegro
Schubert
maj.
*4) min.
D I
d I
B♭V7
I
4. Adagio
Brahms
*5)
min.
maj.
min.
a
A
a
5. 8va
Vivace
Liszt
d min.
D maj.
d min.
etc.
dV
DV

*1) This dominant chord, prolonged through the measure, is common to both modes, so it is simply a question whether the distinctive mediant (the letter *d*) shall be *major or minor* in the resolving chord. — *2) Here the opposite mode is reached chromatically, — par. 310*c*. — *3) The stride. — *4) The change is made chromatically. It serves here to shorten the distance from *D* to *B*♭, which, according to par. 305, would require the intermediate keys *G*, *C* and *F* (or their relatives). *5) Par. 310*b;* IV of *a* minor, and altered IV of *A* major. — See also Ex. 235 – 3.

313. The exchange of mode, seen above, is liable to take place *after any dominant chord, at any point in the phrase,* — only excepting after the *major* dom.-9th (par. 229). The coincidence of the dom. chord-class in the two modes is thus turned to advantage for many reasons; chiefly, as a means of shortening the route into remote keys. For example:

Ex. 233.



*1) The modulatory outline of this example: E—e—G—F—E♭, would be incorrect, were it not for the ingenious manner in which the ambiguity of the $\overset{7}{V}$ is utilized in substituting the *minor* mode each time for the expected major; thus: $E\overset{7}{V}—\left.\begin{matrix}E\\e\end{matrix}\right\}—G\overset{7}{V}—\left.\begin{matrix}G\\g\end{matrix}\right\}—F\overset{7}{V}—\left.\begin{matrix}F\\f\end{matrix}\right\}—E♭.$

*2) The *major* mediant (*c*♯) is substituted for *c*♮ because of the coming *d* minor.

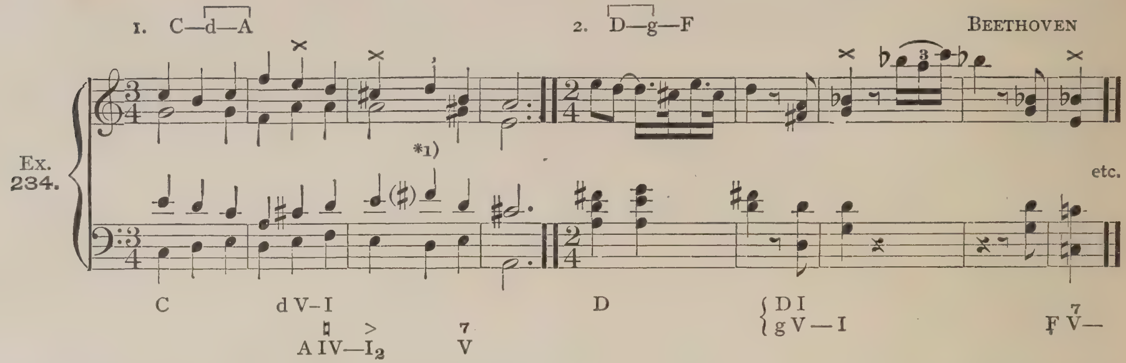
See further: **Schubert,** "Schöne Müllerin" (vocal, op. 25), No. 17, in which there is frequent exchange of mode throughout, in effective adaptation to the character of the words (see meas. 2–3, 4–5, 18, 21–22, 36–38, 40–41, 45–46, etc.). Also **Chopin,** *A*-minor waltz, op. 34, No. 2, meas. 53 to 84.

---

314. As the stride is almost exactly equivalent to a next-related modulation, it is evident that its application as *intermediate key*, in extraneous modulations, conforms sufficiently to the fundamental rule given in par. 305. Its use in this capacity is very advantageous, because it shortens extreme distances materially (being a direct transition of 4 signatures), and relieves the monotony of regularly succeeding signatures.

For instance, instead of the long-winded and monotonous successions *C—F—B♭—E♭—A♭—D♭—G♭*, the same end may be reached thus: *C—f—D♭—G♭*; or: *C—F—b♭—G♭*. (The ┌┐ indicates the stride.) Also, from *C* to *F*♯, thus: *C—e—B—F*♯. From D to F, thus: *D—g—F* (Ex. 234—2). From *C* to *A*, thus: *C—a—E—A*, (*past* the desired key, and back); or: *C—d—A* (Ex. 234—1). For example:

Ex. 234.



*1) *F*♮ in the tenor (as lowered 6th step of *A*) would prolong the impression of the former key (***d*** minor) and make the mod. smoother.

In determining the shortest route to be taken in an extraneous modulation, it is first necessary to ascertain the *distance* and the *direction*, according to the table on the margin. For instance: from *A*♭ to *b* is *six* degrees *upward*. If, as here, the distance exceeds *three* degrees, it is advisable to shorten the modulation by using the stride; but otherwise it is not necessary, and the route may be taken, as usual, through successive signatures. In a remote mod. *upward* from a *major* key, the stride can not be employed directly, for obvious reasons,— the stride is *downward* from major; therefore a transition must first be made into a next-related *minor* key, from which the upward stride will be possible. The same applies inversely to a remote mod. *downward* from a *minor* key. For example, from *C* to *g*♯, thus: *C—e—B—g*♯; or *C—a—E—g*♯. From *f*♯ to *B*♭, thus: *f*♯*—D—g—B*♭; or *f*♯*—A—d—B*♭.

Maj. min.	signa-tures
A♭	
D♭	
G♭ = *F*♯—*d*♯	6♯
B —*g*♯	5♯
E —*c*♯	4♯
A —*f*♯	3♯
D —*b*	2♯
G —*e*	♯
C —*a*	o
F —*d*	♭
B♭—*g*	2♭
E♭—*c*	3♭
A♭—*f*	4♭
D♭—*b*♭	5♭
G♭—*e*♭=*d*♯	6♭=6♯

Downward ↓

↑ Upward

EXERCISE FORTY-SEVEN.

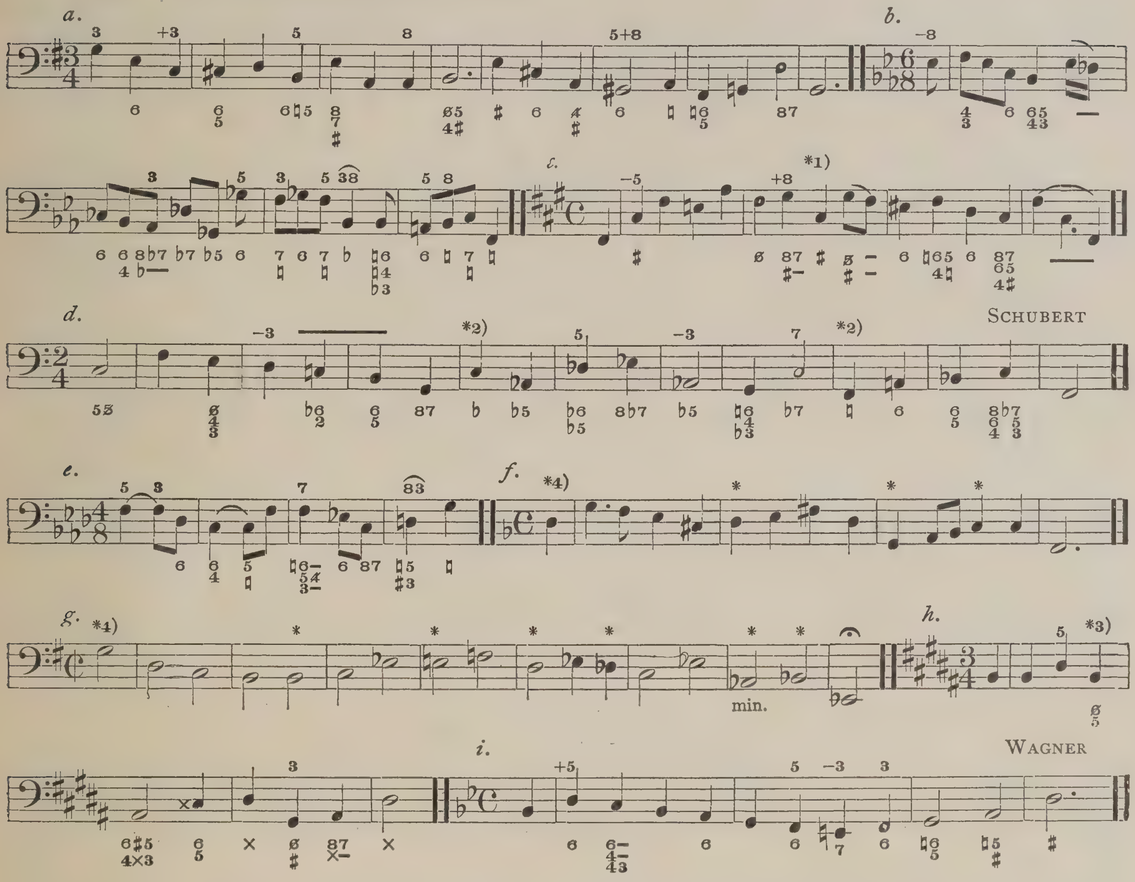
A. Indicate, in *letters* (as shown above), the *shortest possible routes* which may be taken in effecting the following extraneous modulations. *Only the stride*, not the opp. mode, is to be used in shortening the distance.

From *C* to *E*♭	From *d* to *A*♭	From *E* to *g*	From *f*♯ to *E*♭	From *A*♭ to *G*
" *c* " *F*	" *D* " *E*♭	" *E* " *D*♭*1)	" *G*♭ " *F*	" *A* " *e*
" *C*♯ " *g*♯	" *D* " *g*♯	" *e* " *F*♯	" *G*♭ " *c*♯*1)	" *a* " *B*
" *c*♯ " *D*	" *e*♭ " *c*	" *e* " *f*	" *G* " *g* *2)	" *B*♭ " *E*
" *c*♯ " *F*♯	" *e*♭ " *F*♯*1)	" *F* " *E*	" *G* " *D*♭	" *b*♭ " *B*♭
" *D*♭ " *g*	" *E*♭ " *d*	" *F* " *G*♭	" *g*♯ " *b*	" *B* " *f* *1)
" *d* " *A*	" *E*♭ " *C*♭	" *f* " *b*	" *g*♯ " *a*	" *b* " *E*♭
		" *F*♯ " *e*	" *g* " *D*	" *B* " *C*

*1) It must be remembered that 6♭ and 6♯ are alike. — *2) *Not directly;* the opposite mode is not to be used.

B. Work out each of the above modulations, along the adopted route, in **Original phrases or periods.**

C. Basses. To be worked out and analyzed as usual.



*1) *C*♯ major is substituted for *c*♯ minor. — *2) Similar to Note *1), *c* for *C*, and *F* for *f*. — *3) IV^{7} of *d*♯, mixed. — *4) Unfigured bass (par. 264*B*).

MODULATIONS AT CADENCES, AND IN SEQUENCES.

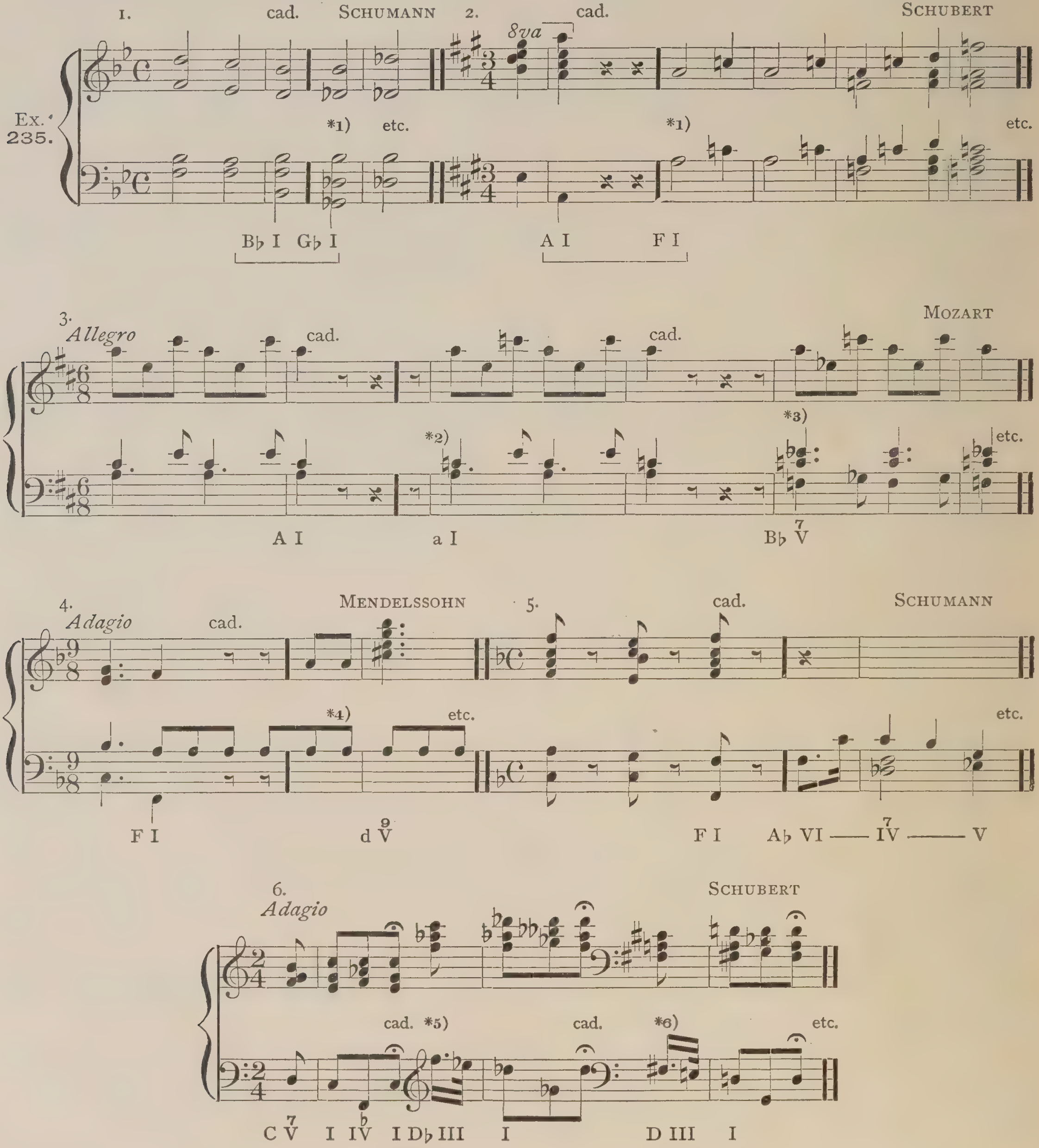
315. *a.* The reason assigned in par. 302 for leaving a key at one of its *tonic* chords was, that the latter fulfil all the obligations of their key and leave no obstacle in the way of an exchange of basis. Also, preference is given to the tonic chords on *accents*, because these are the actual points of rest in the rhythmic oscillation, — the points where all cadences, transient and final, are made.

b. Nowhere is the impression of completion stronger than at the *cadences themselves*, or even at those *points of transient interruption* in the course of a sentence which mark the end of a section of the form, — the "joints" between the members and figures of which the melody is compounded.

316. Hence it is, that a modulation may be made with the greatest ease at any cadence (*i.e.*, *after* the cadence-chord). And it is so reasonable to begin a new phrase, or a new melodic member, with a new key, that the transition may be made abruptly, and *without regard to the fundamental rule of modulation.*

The only limitation is, that there shall be a reasonable degree of affinity between the two keys, — or between the melodic members (as in the sequence). The modulation may, and often is, made from the last chord of the first key (which is likely to be tonic or dominant) *directly into the I of the next key.* (Comp. par. 300*c*, where this is defined as very irregular. The *cadential break of connection* renders almost any change feasible.) For example:

Ex. 235.

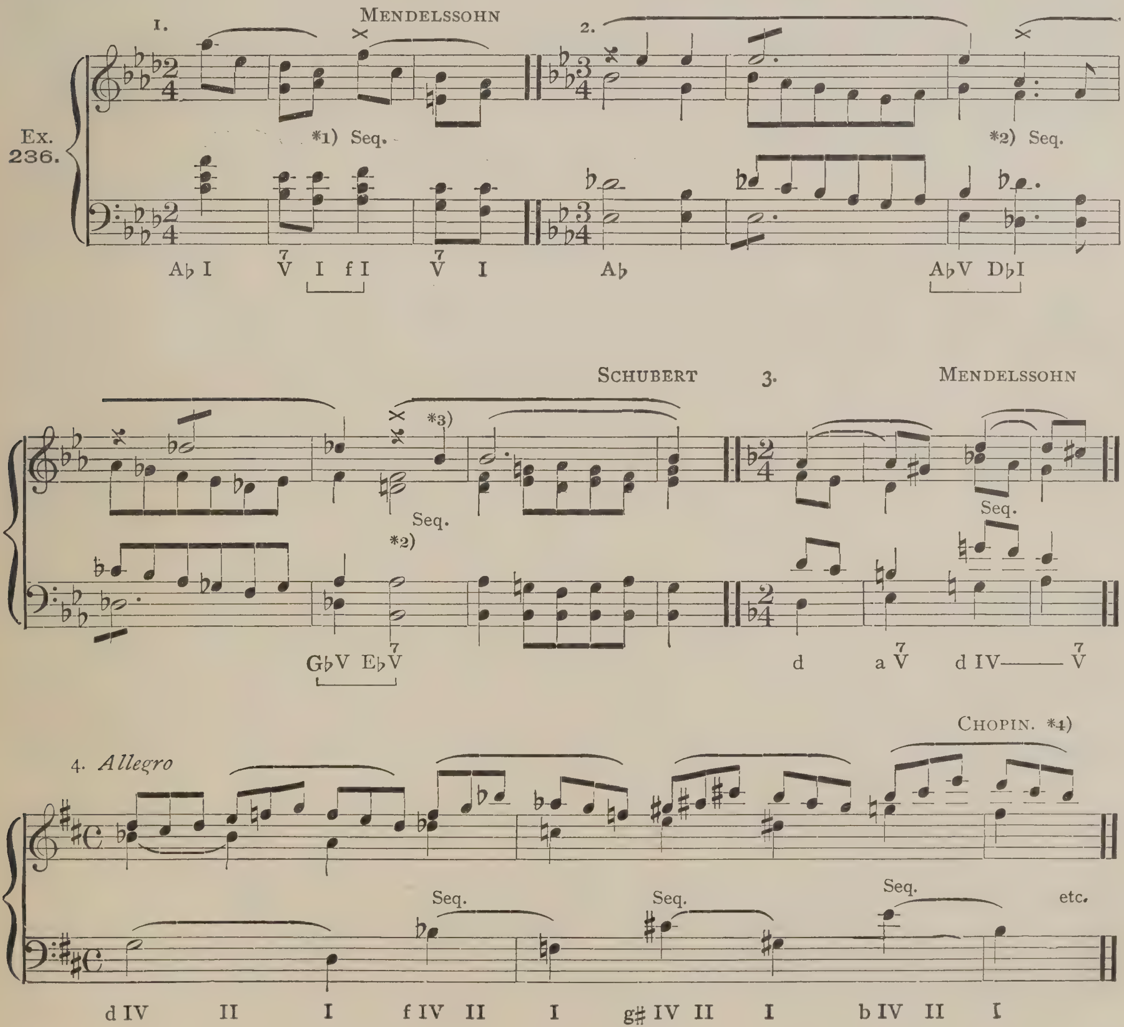

1.
cad.
SCHUMANN
*1)
etc.
B♭ I G♭ I
2.
8va
cad.
SCHUBERT
*1)
etc.
A I F I
3.
Allegro
cad.
cad.
MOZART
*2)
*3)
etc.
A I
a I
B♭ V7
4.
Adagio
cad.
MENDELSSOHN
*4)
etc.
F I
d V9
5.
cad.
SCHUMANN
etc.
F I
A♭ VI — IV7 — V
6.
Adagio
SCHUBERT
cad. *5)
cad.
*6)
etc.
C V7 I IV♭ I D♭ III I
D III I

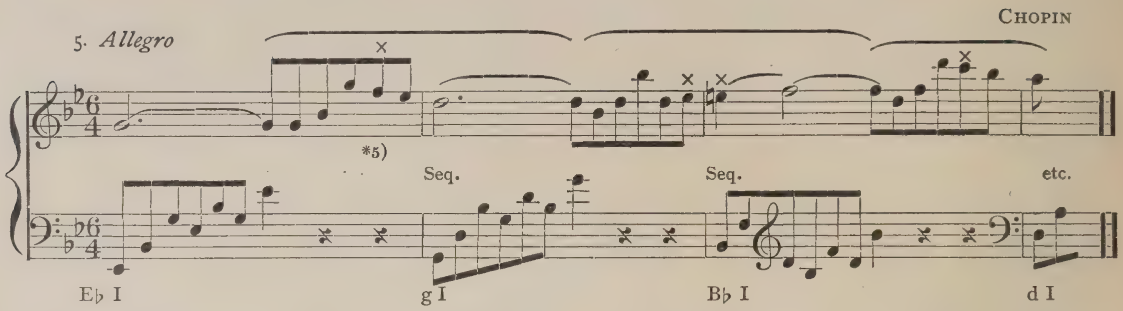
*1) An immediate progression from one tonic chord into another. — *2) The opposite mode. — *3) There is no relation between these keys (*a-B♭*). *But there is an important common tone, a,* which is the tonic of the first key, and the leading-tone of the next. This affords the desirable affinity, and is, in general, a significant feature of all free modulation, — to be explained later in detail (see par. 346). — *4) Common tone *a*, third step of *F*, fifth step of *d*. — *5) Common tone *c*, tonic of first key, leading-tone of the next. — *6) The common tone *d♭* is changed to *c♯*; the result is the same.

Such modulations as these might more aptly be called "*modulatory leaps*," than legitimate changes of key.

317. On this same principle, and with similar ease, modulations may be made *by sequence* (par. 260, and, particularly, par. 261). The original member and its sequential reproduction are of course separated by a "joint" or transient cadence, at which any change of key may take place; and the desirable affinity is fully provided by the sequential agreement of the members.

Ex. 236.


1.
MENDELSSOHN
*1) Seq.
A♭ I
V7 I f I
V7 I
2.
*2) Seq.
A♭
A♭V D♭I
SCHUBERT
*3)
Seq.
*2)
G♭V E♭V7
3.
MENDELSSOHN
Seq.
d
a V7
d IV—— V7
4. Allegro
CHOPIN. *4)
Seq.
Seq.
Seq.
etc.
d IV II I
f IV II I
g♯ IV II I
b IV II I

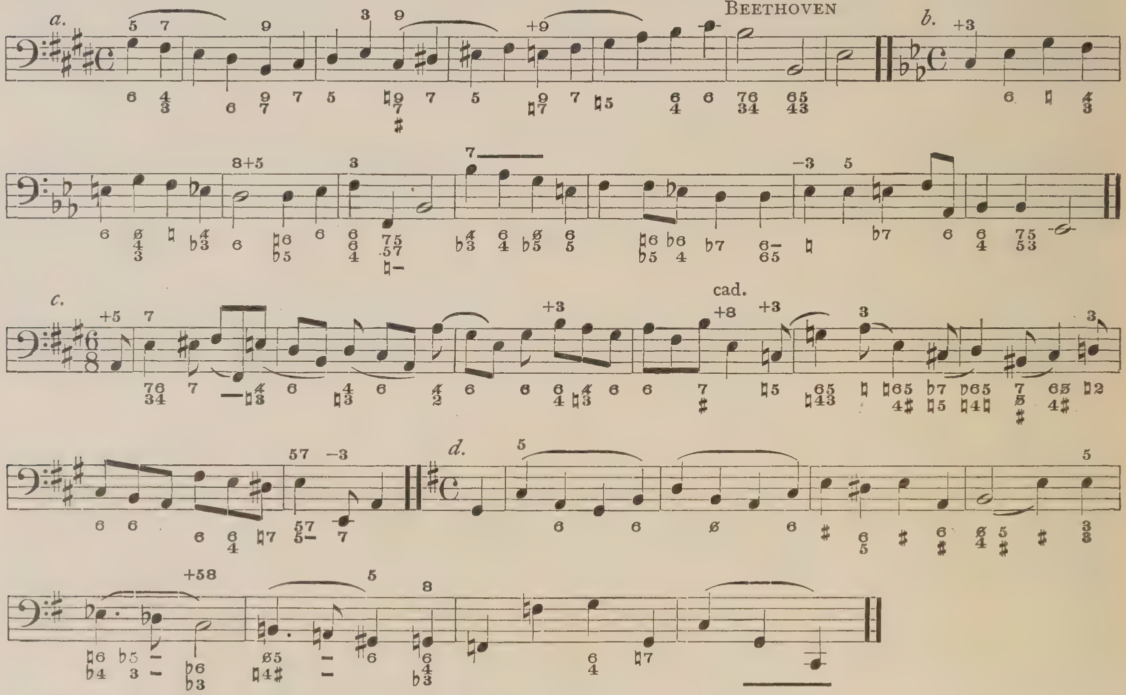


*1) Ex. 235, Note *1). — *2) This modulation is very abrupt, and the keys in no sense related. Such unusual transitions could scarcely be effected anywhere but at a melodic "joint," and by sequence. — *3) This third group is not an *exact* sequence of the preceding one, nor is this necessary. General similarity of melodic or harmonic progression, or a *partial* sequence, is all that the ear demands. — *4) Étude, op. 25, No. 10, 8 meas. from the end. Given here in simplified form. — *5) The tones marked × are "grace-notes." The student may read from par. 395 to par. 401, and is at liberty to apply them here, if he chooses.

See also Ex. 235–6; Ex. 239*c*. There is an analogy between these examples and Ex. 90, Note *2).

EXERCISE FORTY-EIGHT.

Modulations in sequences and at cadences, into related and remote keys. To be worked out and analyzed as usual.



Add a large number of **Original phrases and periods.**

SECTION 3. CHROMATIC PROGRESSION, AS A SPECIAL MODULATORY AGENT.

318. *a.* A progression is chromatic when the *same letter* is inflected upward or downward by an accidental, thus: *g–g♯*, or *g–g♭*, and reversed.

b. The result of such an inflection is greater than it appears to be, and can be appreciated only by comparing the two tones as *keynotes.* This test proves that every chromatic progression is *actually a leap of seven degrees;* thus *G* (1♯) and *G♭* (6 flats); or *A♭* (4 flats) and *A♮* (3 sharps). See par. 16*b*.

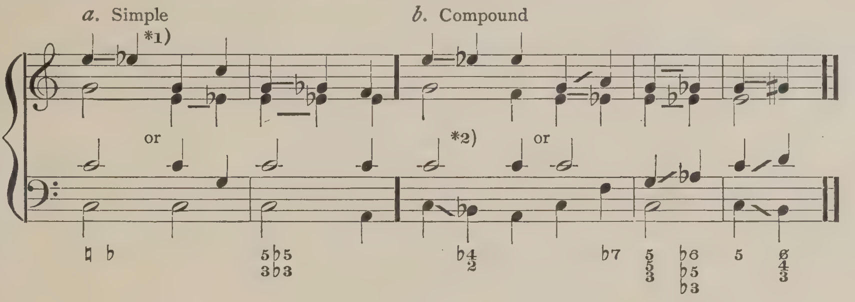
c. The chromatic inflection, for which there is no apparent *theoretical* justification, is excused on *practical* grounds; namely, the difference in pitch is so slight that the ear readily follows the change. It is a case of "relation by proximity."

319. The chromatic progression has been used constantly, in the foregoing exercises, but merely as a result of the fundamental rule, or other ordinary condition, of modulation. It may, however, be the direct *cause* of the change, and it is in this specific capacity that chromatics are here being considered.

320. **Chromatic chord-progressions** (those in which one or more of the parts progress chromatically) may be distinguished as *simple* or *compound.*

In a *simple* chrom. chord-progression the chord does not change its *form.* In compound progressions there are diatonic as well as chromatic successions, so that the chord assumes a new shape. For illustration:

Ex. 237.



*1) The simple change of *e* into *e♭* does not alter the *form* of the chord, which is the triad *c—e—g* both before and after the chrom. movement. — *2) Simultaneously with the chrom. change *e—e♭* in soprano, there is a diatonic progression *c—b♭* in bass, whereby the chord-form is changed from a triad to a ch. of the second.

RULES OF CHROMATIC PROGRESSION.

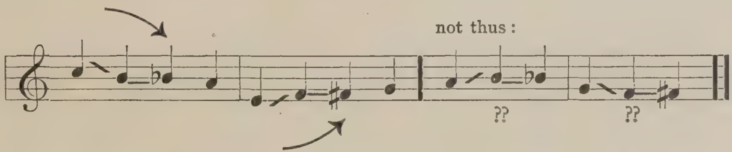
321. The rules of chromatic inflection have already been given in par. 269*e*. They are recapitulated here, for convenience:

a. The chrom. inflection is usually made in *the same part.*

b. The note to be inflected *should not be doubled*, as a rule. If it is doubled, one part moves diatonically, — *not with a leap*, — opposite to the direction of the chrom. change.

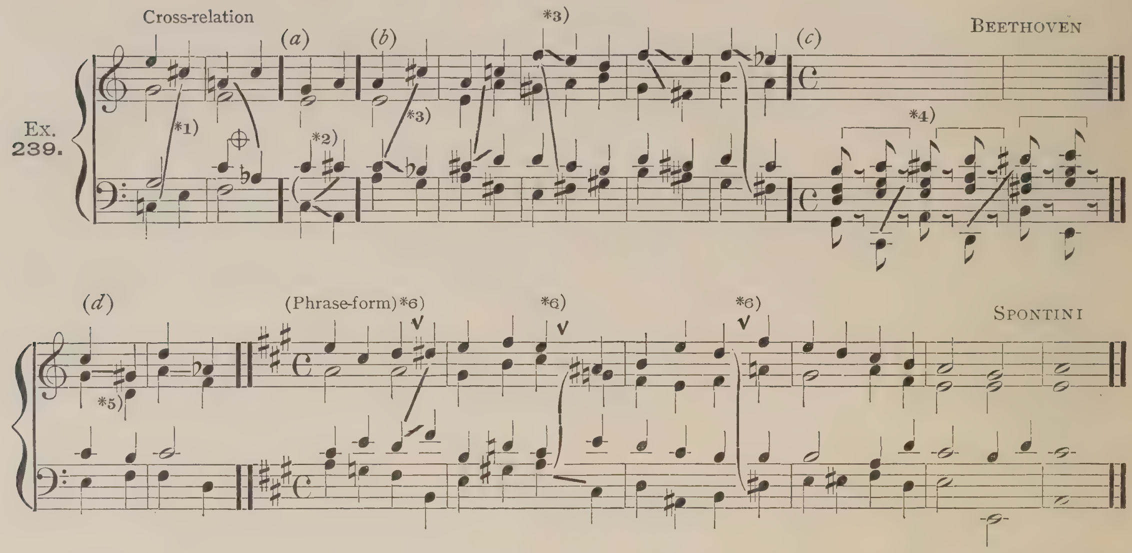
c. The chrom. progression *should be approached in the corresponding direction*, if possible.

Ex. 238.



322. The violation of par. 321*a* occasions the so-called *cross-relation.* It is never wrong when the first of the two chromatic tones *does not leap;* and is often mitigated by other conditions, — when it occurs at a "joint" or cadence, — or when the first tone is in *bass*, — or when the change occurs in different parts but in the same register. For example:

Ex. 239.



*1) These two examples are inexcusable. — *2) The leap in *bass* seems permissible, probably because the bass is always to some extent independent of the other parts. — *3) All permitted, because the first of the two chrom. tones *does not leap.* — *4) Sequence modulations; the cross-relation is separated by the "joints." — *5) Limited to instrumental music; the cross-relation is present, but the ear does not detect it. — *6) These cross-relations all occur on the same beat, in successive measures, and seem justified on grounds similar to Note *4). Another peculiar case appears in Ex. 244–5.

Chromatic Chord-progressions.

323. The entire system of chord-succession is divided into two radically distinct domains, the **diatonic** and the **chromatic.**

To the **diatonic domain** pertain all relations and associations between **any two chords which belong to the same key.** Here, the quality and permissibility of the chord-successions may be, and are, determined by natural harmonic principles, because their relations are defined from a common centre (their tonic). These rules of diatonic chord-succession are given in Parts I and II; they are incontestably necessary and just, and must constitute the legitimate *basis* of all harmonic thought. "Diatonics" is the domain of harmonic law and order.

To the **chromatic domain** pertain all connections between **any two chords which belong peculiarly to different keys.** Here, no natural law of chord-succession can be laid down and defended, because the chord-relations cannot be defined from a common centre; *any imaginable succession is possible,* and it is difficult even to systematize, in some degree, the almost inexhaustible multitude of possibilities in this domain. "Chromatics" is the domain of harmonic lawlessness.

While the chord-associations in the diatonic sphere are the unconstrained consequence of *natural* conditions, the chord-associations in the chromatic sphere are a direct violation of these natural conditions, and are effected by *artificial* means (*i.e.*, by means of the apparently delicate, but in reality most powerful, chromatic "lever," which inflects the chord in such a way as to destroy its contact with its tonic and cancel its obligations to the latter).

a. The chromatic inflection may be made in *either direction* (upward or downward).

b. It may be applied to *any chord-interval* (root, third, fifth; seldom seventh or ninth, and chiefly downward, in these intervals).

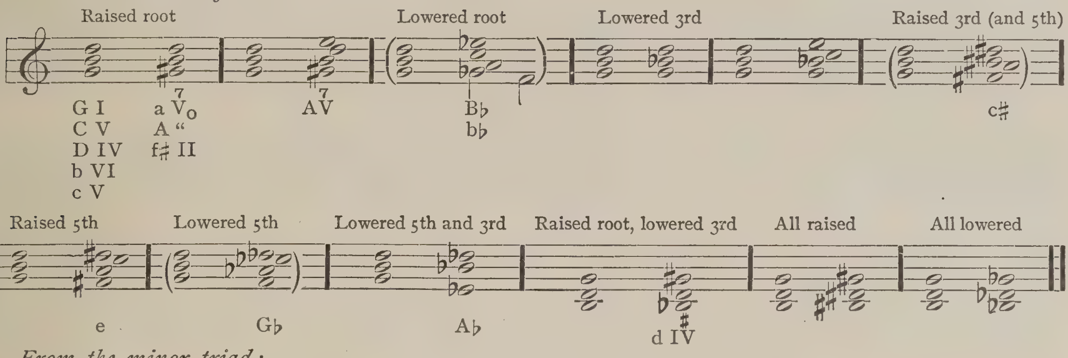
c. It may be applied to almost *any two* chord-intervals at once, or even to *all three* (of a triad) at once. In this case the inflections are generally made in the same direction, though it is also possible to inflect one interval upward and another downward; and, if all three are inflected, the chord must be in inverted form.

d. It may be applied to *any chord;* best, to a *tonic* chord, major or minor (Ex. 241*a*); or to a *subdominant* or *dominant* triad (Ex. 241*b*); or to the *dominant-seventh* or *dom.-ninth* (Ex. 241*c*); or even to *other 4-tone chords* (II^7, IV^7, VI^7).

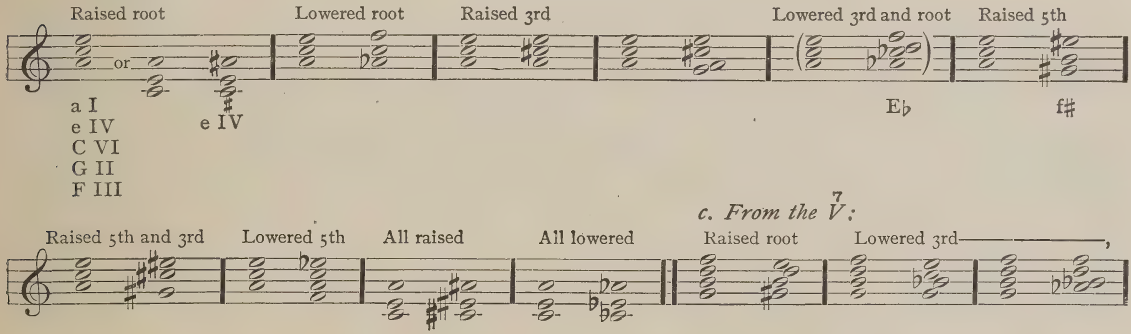
e. The chrom. chord-progression may, finally, be either simple or compound, more commonly the latter. For example:

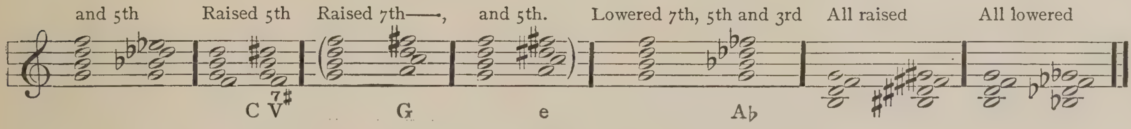
a. From the major triad:

Ex. 240.

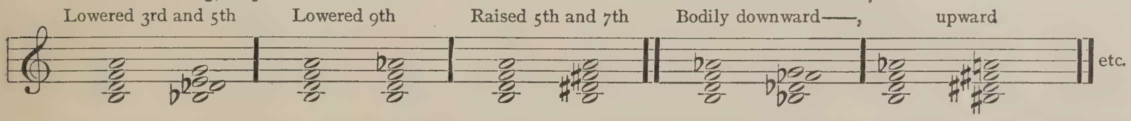

Raised root
Lowered root
Lowered 3rd
Raised 3rd (and 5th)
G I
C V
D IV
b VI
c V
a V^7_0
A "
f♯ II
AV^7
B♭
b♭
c♯
Raised 5th
Lowered 5th
Lowered 5th and 3rd
Raised root, lowered 3rd
All raised
All lowered
e
G♭
A♭
d IV

b. From the minor triad:


Raised root
or
Lowered root
Raised 3rd
Lowered 3rd and root
Raised 5th
a I
e IV
C VI
G II
F III
e IV
E♭
f♯
c. From the V^7:
Raised 5th and 3rd
Lowered 5th
All raised
All lowered
Raised root
Lowered 3rd


and 5th
Raised 5th
Raised 7th—,
and 5th.
Lowered 7th, 5th and 3rd
All raised
All lowered
C $V^{7♯}$
G
e
A♭

d. From the V^9_0, major: *e. From the dim. 7th:*

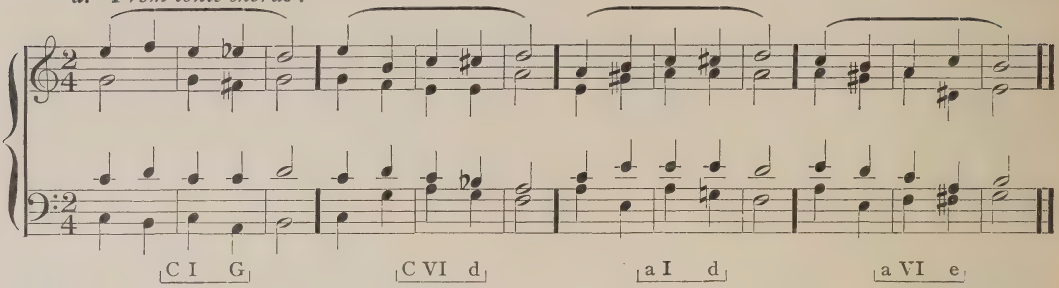

Lowered 3rd and 5th
Lowered 9th
Raised 5th and 7th
Bodily downward—,
upward
etc.

It is needless and futile to continue this table, for it is well-nigh inexhaustible. It is left to the investigation of the student.

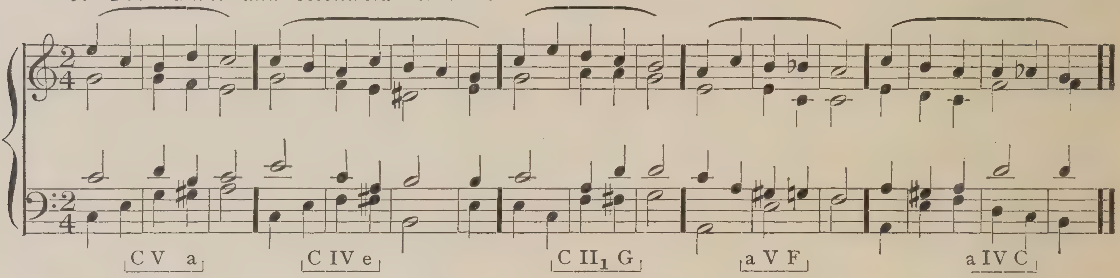
The rules governing the technical act are given in par. 321; but the guides through this maze of "wandering" harmonies, the choice, and extent of their use, — these can be dictated only by the taste, tact and good judgment of the student. But see par. 324 and 325. Also par. 426.

Ex. 241.

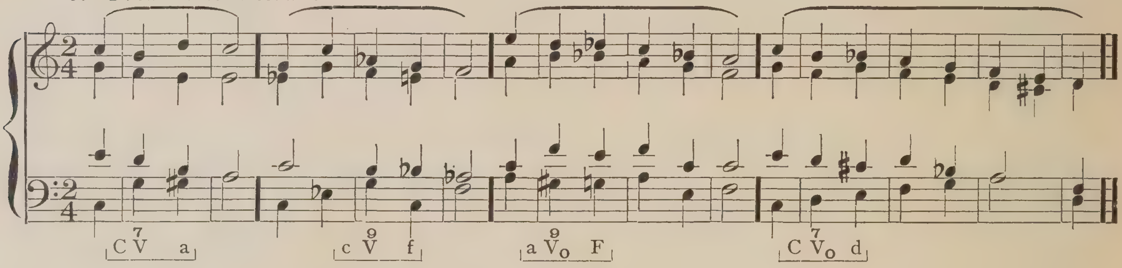
a. From tonic chords :

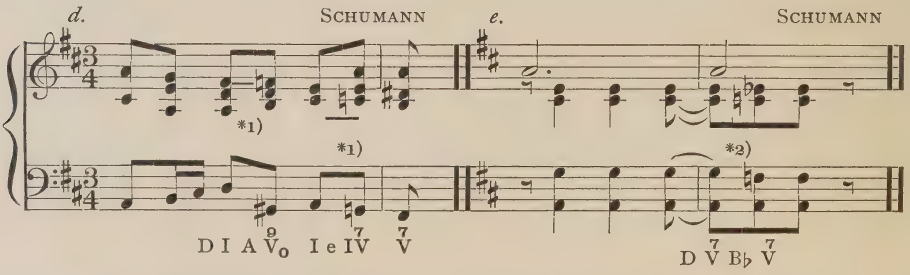

C I G
C VI d
a I d
a VI e

b. From First- and Second-class chords :


C V a
C IV e
C II_1 G
a V F
a IV C

c. From dom.-discords :


C $\overset{7}{V}$ a
c $\overset{9}{V}$ f
a $\overset{9}{V}_0$ F
C $\overset{7}{V}_0$ d


d.
SCHUMANN
*1)
*1)
D I A $\overset{9}{V}_0$ I e $\overset{7}{IV}$ $\overset{7}{V}$
e.
SCHUMANN
*2)
D $\overset{7}{V}$ B♭ $\overset{7}{V}$

*1) In each case the 3rd of the major I is lowered. — *2) Lowered 3rd and 5th in the dom.-7th.

EXERCISE FORTY-NINE.

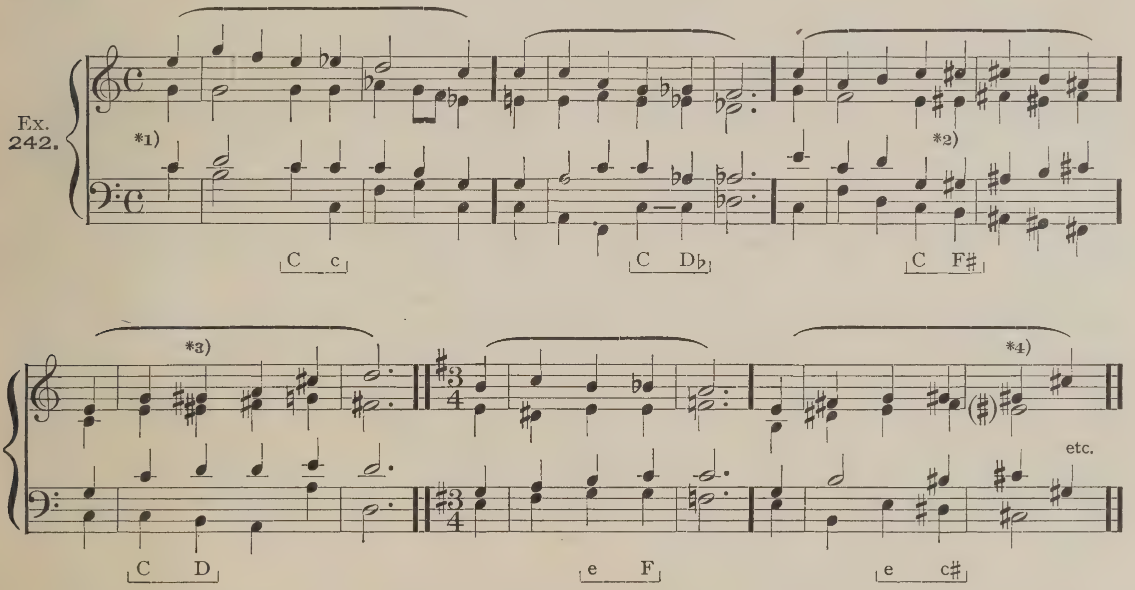
Construct a large number of **Original phrases,** utilizing the chrom. material given in Ex. 240, — but from different keys. Or the student may be guided by the *text* (par. 323*a* — *e*), and make his own chromatic experiments, without reference to the example.

---

324. Among the many curious and exceptional results which attend the use of chrom. changes, there are two which require special consideration, namely:

a. 1st: Chrom. progressions are not necessarily limited to the next-related modulations, but often lead *immediately, and easily, into remote keys.* Such irregularities, though possible results of chrom. agency, can of course be admitted only when obviously justified by circumstances. For instance:

Ex. 242.



*1) These modulations are all made according to the *fundamental* rule (par. 302), — from a *tonic* chord. — *2) A modulation of six degrees, the most distant that can be made in one move. — *3) The altered $\overset{7}{\text{II}}$ of *D*. — *4) May just as well be *C♯ major* (with *e♯* in alto).

b. 2nd: By means of the chrom. inflection, *the dominant-discords may evade their legitimate resolution,* in their own key, and be led into other keys. The conditions upon which this extraordinary (though very common) modulatory progression is allowed, are:

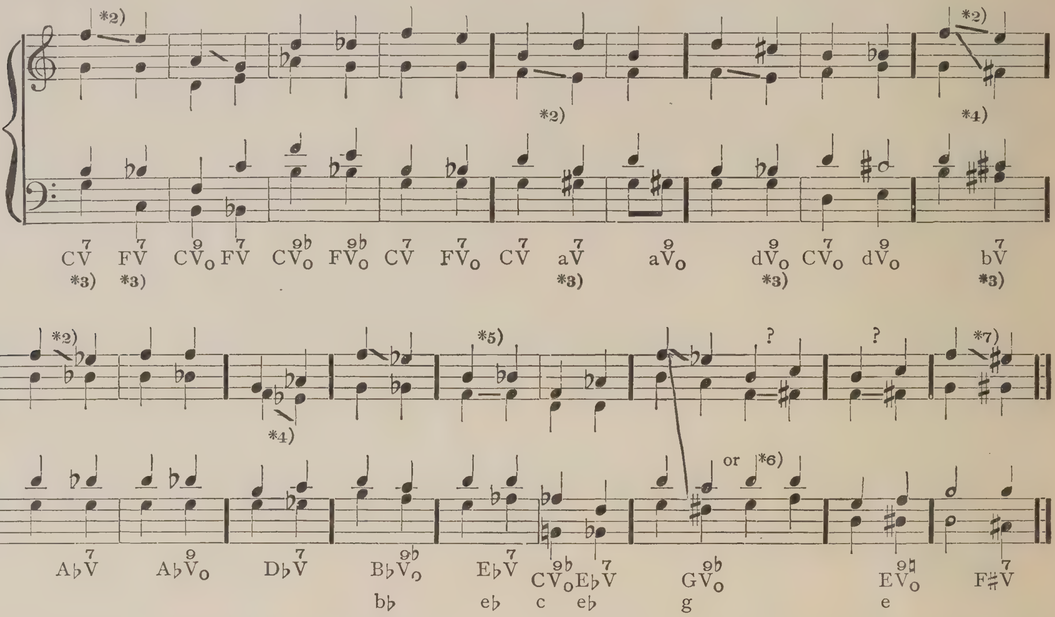
First, that the dom.-discord should, as a rule, be led chromatically *into another dom.-discord,— i.e.,* into a counterpart chord, with similar obligations in another key; and

Second, that the obligations of the first chord should be resolved as fully as possible, — *i.e.,* the 7th and 9th should descend, or remain stationary, and the leading-tone ascend, or remain.

c. There are, naturally, some exceptions to these rules, which, in common with other peculiar successions, must be placed, roughly, to the account of "chromatics."

The following table illustrates the progression of the dom.-discords of *C* major into those of all the other keys, in the order of preference:

Ex. 243. *1)


*2)
*2)
*4)
*2)
CV7 FV7 CV9o FV7 CV9♭o FV9♭o CV7 FV7o CV7 aV7 aV9o dV9o CV7o dV9o bV7
*3) *3) *3) *3) *3)
*2)
*4)
*5)
?
?
*7)
or *6)
A♭V7 A♭V9o D♭V7 B♭V9♭o E♭V7 CV9♭o E♭V7 GV9♭o EV9♮o F♯V7
b♭ e♭ c e♭ g e

*1) These chords, excepting *4), can be connected in *any inversions.* — *2) The seventh is resolved diatonically downward. — *3) The dom.-discords, it will be recalled, are the same in major and minor. These first chords may also be *c minor* and *f minor.* — *4) These progressions are good only in this arrangement of parts. — *5) Passive resolution of the seventh. — *6) The seventh progresses chromatically *upward;* this is very rare. — *7) An "enharmonic" change; par. 328.

Comparison of these various successions will reveal the fact that the best progressions are those in which

(*a*) *the 3rd of the first dom.-7th is lowered*, or

(*b*) *the root is raised.* See Ex. 240*c;* Ex. 241*c.*

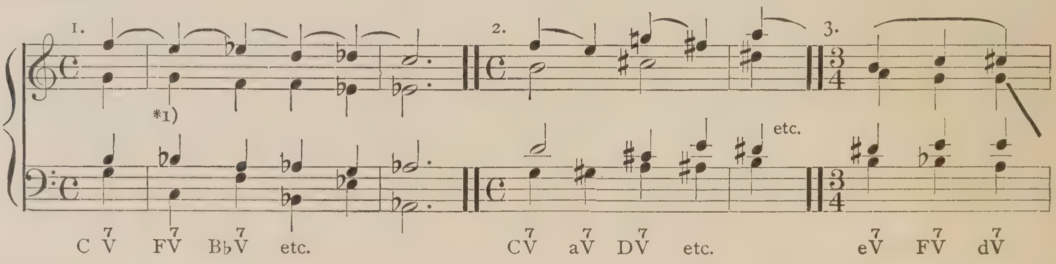
The other chrom. inflections are possible, but all more or less rare.

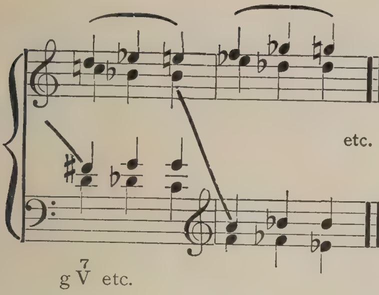
325. When one dom.-discord is led chromatically into another, in this manner, the *second one is generally resolved into its tonic chord.* But it is also possible to progress *again,* chromatically, into a third dom.-chord, and so on.

Such **continuous chrom. chord-progressions** are least confusing when they constitute more or less exact *sequences;* and, in any case, *some thread of connection must be pursued in some part or other, best in soprano or bass;* as for instance, the descending progression of the soprano in Ex. 244–1, in regular chrom. succession; and the regularly ascending chrom. succession in No. 2 (bass), No. 3 (soprano), No. 9 (bass); and the bass-sequences in Nos. 4 and 6.

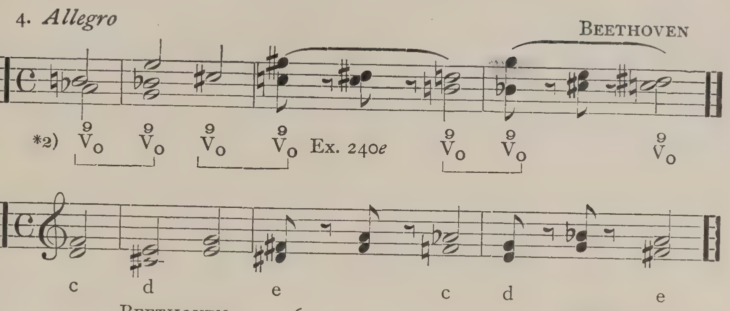
For illustration:

Ex. 244.

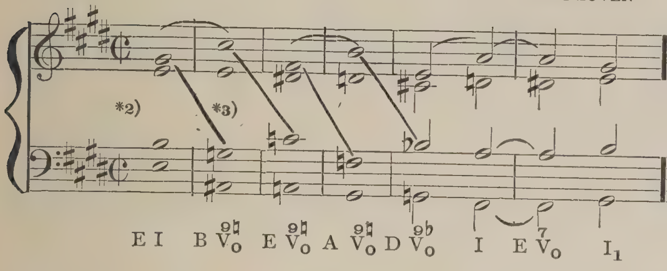

1.
*1)
C V7 FV7 B♭V7 etc.
2.
etc.
CV7 aV7 DV7 etc.
3.
eV7 FV7 dV7


etc.
g $\overset{7}{V}$ etc.

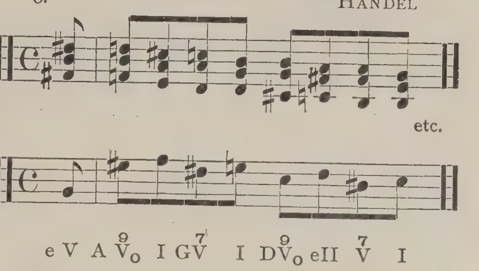
4.


Allegro
BEETHOVEN
*2)
$\overset{9}{V}_0$ $\overset{9}{V}_0$ $\overset{9}{V}_0$ $\overset{9}{V}_0$ Ex. 240e $\overset{9}{V}_0$ $\overset{9}{V}_0$ $\overset{9}{V}_0$
c d e c d e

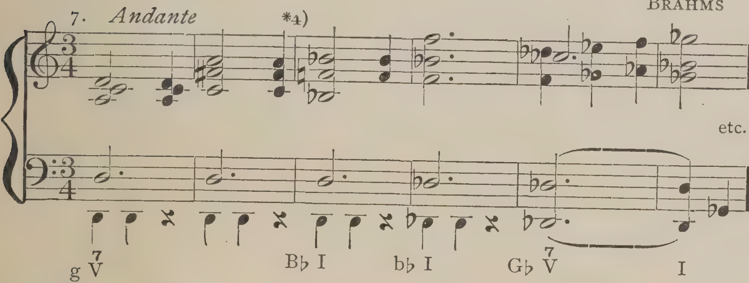
5.


BEETHOVEN
*2)
*3)
E I B $\overset{9\natural}{V}_0$ E $\overset{9\natural}{V}_0$ A $\overset{9\natural}{V}_0$ D $\overset{9\flat}{V}_0$ I E $\overset{7}{V}_0$ I_1

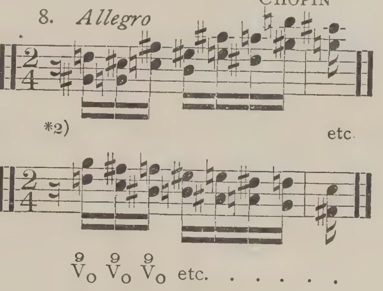
6.


HÄNDEL
etc.
e V A $\overset{9}{V}_0$ I G $\overset{7}{V}$ I D $\overset{9}{V}_0$ e II $\overset{7}{V}$ I

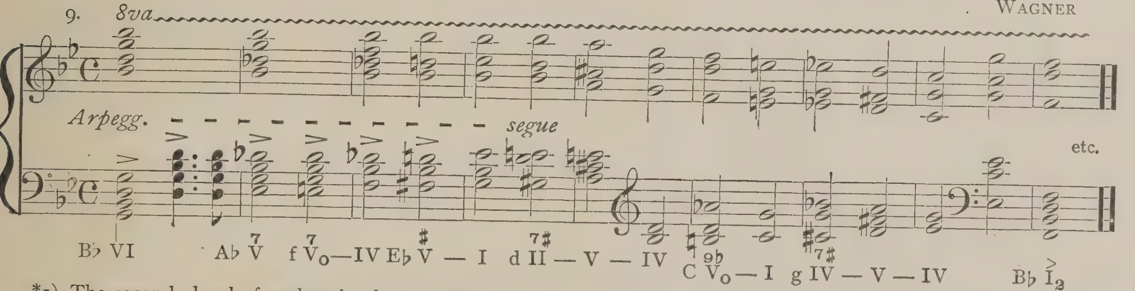
7.


Andante
*4)
BRAHMS
etc.
g $\overset{7}{V}$ B♭ I b♭ I G♭ $\overset{7}{V}$ I

8.


Allegro
CHOPIN
*2)
etc.
$\overset{9}{V}_0$ $\overset{9}{V}_0$ $\overset{9}{V}_0$ etc. . . . . .

9.


8va
WAGNER
Arpegg. - - - - - - - - - - - segue
etc.
B♭ VI A♭ $\overset{7}{V}$ f $\overset{7}{V}_0$—IV E♭ $\overset{\sharp}{V}$ — I d $\overset{7\sharp}{II}$ — V — IV C $\overset{9\flat}{V}_0$ — I g $\overset{7\sharp}{IV}$ — V — IV B♭ $\overset{>}{I}_2$

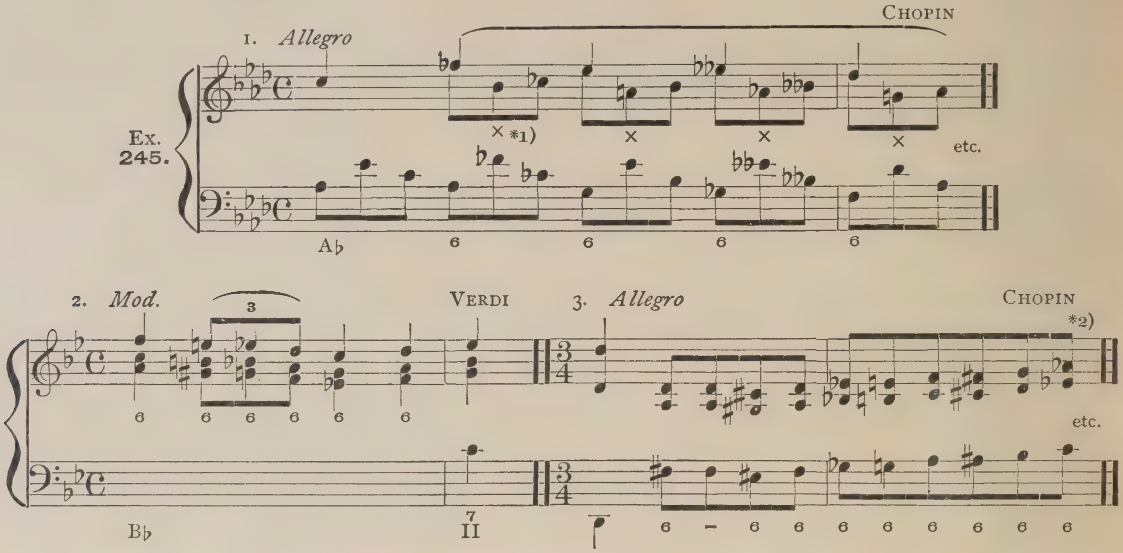
---

*1) The second chord of each pair of successive dom.-7ths conforms exactly to the normal resolution of the first one, excepting that a *new seventh is added*, each time. This succession is placed at the head of Ex. 243, as the best; and its continuous occurrence in interlinked sequences, as here, is as simple and natural as anything in "chromatics" can be. — *2) Chords of the *diminished seventh* in chromatic succession. — *3) These extraordinary cross-relations seem to be justified, partly, by the sequential arrangement; but they would scarcely be possible in any other succession than that of *dim.-7th chords*, — defined in par. 239*c* as the most flexible in all harmony. — *4) Cases of this kind, where the $\overset{7}{V}$ of one key progresses chromatically *into the I of another key*, are very rare; see par. 324*c*.

326. Besides the consecutive dom.-7ths and dim.-7ths, other chord-forms may appear in direct succession, through chromatic agency; but strictly according to the principle enunciated in par. 325, — some connecting thread should be pursued, in soprano or bass.

a. Probably the most common of these is the chromatic succession of *chords of the 6th,* in either direction. Comp. par. 156.

Ex. 245.

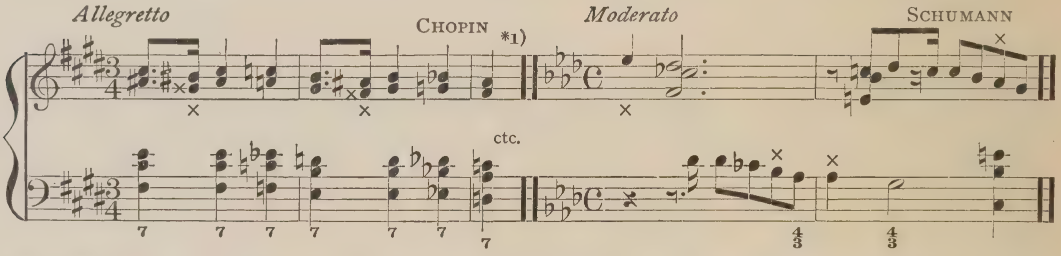


*1) The notes marked × are grace-notes. — *2) Pfte. sonata in *b♭*, op. 35, *Scherzo*, meas. 37, 38; see also the following 11 measures. — See Ex. 282, No. 10.

b. Successive dom.-7ths, uninverted;

c. Successive 4–3 chords; — and so on.

Ex. 246.



*1) Mazurka, op. 30, No. 4, near the end, — 4 measures in succession. The very unusual array of perfect 5ths is justified by general artistic conditions. Grace-notes marked ×.

327. The above examples illustrate *passing modulations* of the most transient kind. In many cases the keys are represented by *no more than one single chord.* This should not be regarded as a contradiction of the principle enunciated in par. 267*e* (which review). It remains a fact, that *one isolated chord does not completely define a key,* but is dependent upon the chords which precede and (especially) which *follow* it, for its absolute identification. This is demonstrated in Ex. 228.

But when, as in this example, the adjoining chords are **chromatic,** and therefore confirmatory neither of the middle chord nor of each other, then of course there is no alternative but to define each single chord *by conjecture*, according to the key which it reasonably suggests. The choice between the two opposite modes is almost always quite optional; Ex.

243, Note *3). — Finally, when the succession is as rapid as in Ex. 244, No. 8, it is a question whether *any* definite change of key can be felt at all, or whether the whole is not a series of "passing chords," — see later.

For interesting examples of chromatic succession the student is referred to **Bach,** Chromatic Fantasie, meas. 33–41; **Chopin,** Étude op. 10, No. 3, meas. 38–41; **Schumann,** Novellette op. 21, No. 3, meas. 43–49; **Wagner,** Overture to Tannhäuser, measures 17–30.

FUNDAMENTAL PRINCIPLES.

A chrom. inflection should be made in *one* part, and should be approached in the corresponding direction, as a rule.

The cross-relation is never wrong when the first of the two chromatic tones does not *leap*.

Through the agency of chromatics, any chord-progression becomes possible; remote keys may be reached directly; dom.-discords, and other bodies, may occur in direct succession.

The best chrom. inflections in the dom.-7th chord are the lowering of the 3rd, and raising of the root.

The dim.-7th chords connect with each other very flexibly.

EXERCISE FIFTY.

A. Make two tables, exhibiting the progression, 1st, *from the I of C major (in any form) into the* $\overset{7}{V}$ *or* $\overset{9\flat}{V_{0}}$ *(as dim. 7th) of all other major keys;* and 2nd, *from the I of a minor* (= VI of C) *into the* $\overset{7}{V}$ *or* $\overset{9\flat}{V_{0}}$ *of all the other keys.* Thus:

Table I

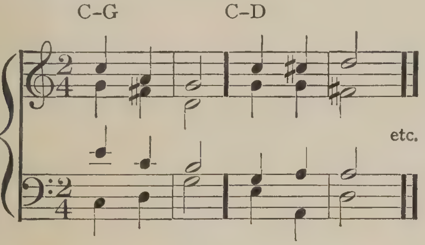
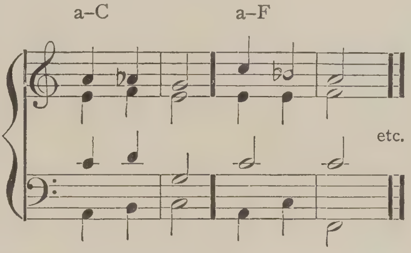
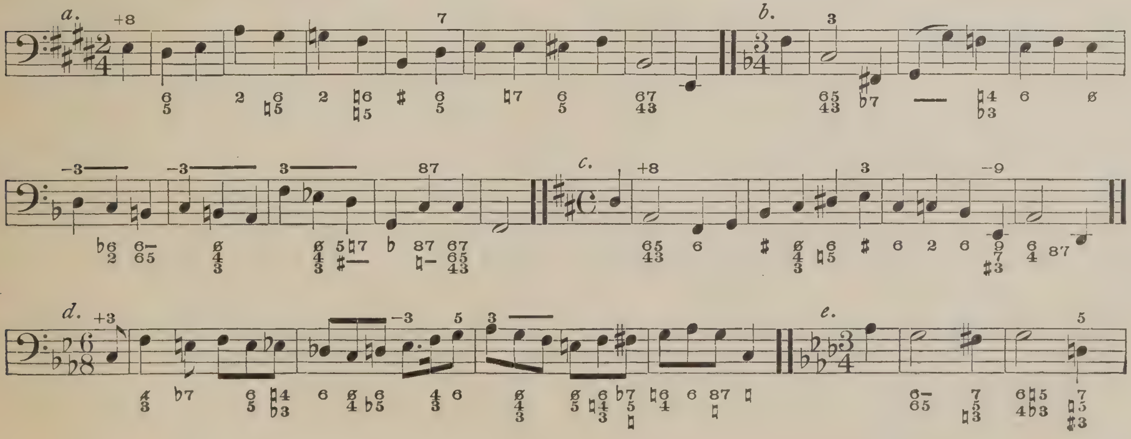
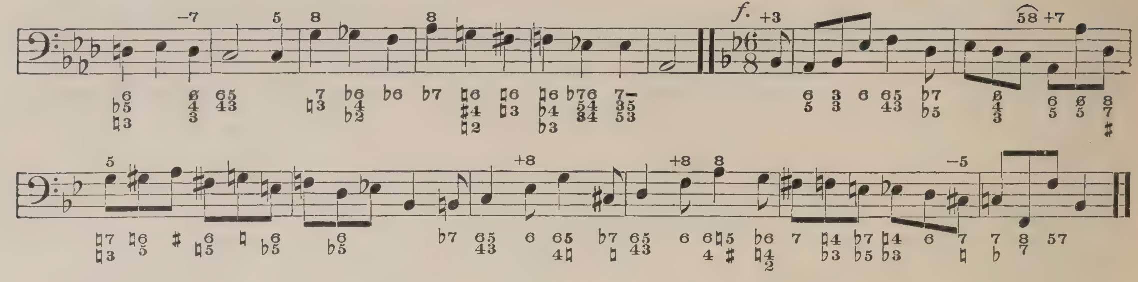


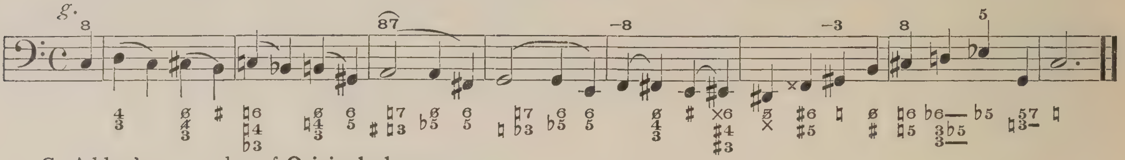
Table II



B. Basses with chromatic modulations. To be analyzed, as usual.







C. Add a large number of **Original phrases.**

SECTION 4. ENHARMONIC MODULATION.

328. A progression is enharmonic when the next higher or lower letter is so inflected as to *agree in sound* with the original tone, thus: *g*♭—*f*♯; *g*♯—*a*♭; *f*—*e*♯; *c*♭—*b*; *g*—*f*× and *a*♭♭; etc.

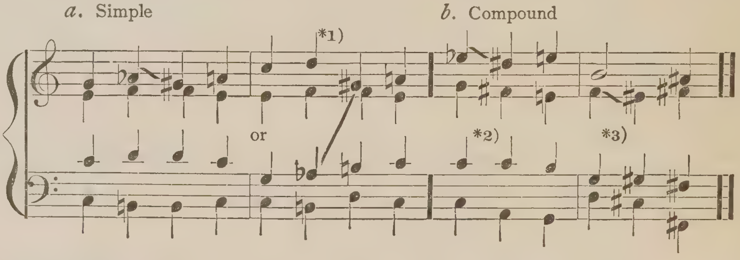
329. *a.* It is usually called the enharmonic "exchange" or "change", upon the universal assumption that it is not a "progression"; and this assumption is *practically* justified by the location of the tones on the pianoforte, where both enharmonic tones are produced with the same white or black key, and therefore are made to correspond exactly in pitch. Still, there is an actual difference, and, consequently, it is *theoretically* proper to call it a progression.

b. The actual difference in pitch equals twelve harmonic degrees: (*f*♯ = 6 sharps, and *g*♭ = 6 flats. Compare par. 318*b*). Ex. 220 exhibits the actual enharmonic difference, at the keynotes *F*♯ and *G*♭; and the dotted lines there indicate the manner in which it appears at other points in the modulatory circle also.

330. The enh. change involves an inevitable change of key, and therefore it is a modulatory factor. Thus, *g*♯ is the leading-tone of *A* and tends towards the "sharp" keys; but *a*♭, which is practically identical in sound with *g*♯, is the 6th scale-step of *c* minor and tends towards the "flat" keys.

331. Enharmonic chord-progressions, like the chromatic ones, are distinguished as *simple* or *compound:* simple, when the chord undergoes no other change than the enh. inflection; *compound*, when a diatonic or chromatic progression is made simultaneously with the enh. change. For example:

Ex. 247.



*1) The enharm. change is divided between tenor and soprano; as it creates no cross-relation, it is allowed. And the progression in bass does not make the chord-progression *compound*, because it does not alter the sound of the chord. — *2) Here, on the contrary, there are diatonic progressions in alto and bass which produce an entirely new chord-effect. — At *3) all three species of melodic succession are simultaneously represented: *diatonic* in bass, *chromatic* in tenor, and *enharmonic* in alto. See Ex. 243, Note *7).

332. Compound enharm. chord-progressions are the most common, because the change of letter is so apt to destroy the chord-formation, and render readjustment necessary by other progressions at the same time.

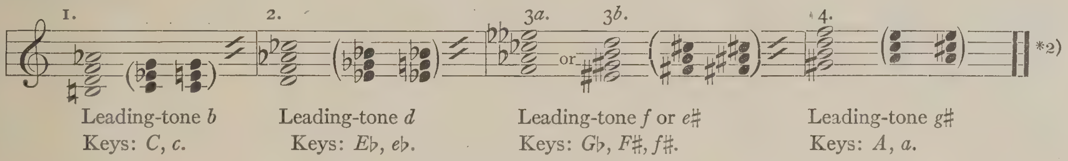
SIMPLE ENHARMONIC CHANGES, WITH THE DIM. 7TH.

333. The best chord for simple enharm. changes is the **chord of the diminished seventh,** the properties of which in this particular are so remarkable and manifold that it is often called the "enharmonic chord."

Its susceptibility of enharm. transformation is owing to its peculiarity of structure, — explained in par. 239*b*, *c*, and *d*. As the chord always sounds the same in every shape (whether the leading-tone appears at the bottom, or not), and as there is, consequently, no distinction whatever in sound between the intervals of the chord, it follows **that any** (**and each**) **of the four tones** of which the chord consists, **may be regarded as a leading-tone.** This, of course, involves a successive change of *key*, and, consequently, of *notation;* and this change of notation is "enharmonic."

Applied to the dim. seventh on *b*, the result will be the four minor keys — and also the four *major* keys; see Ex. 198, Note *3) — of which the tones *b*, *d*, *f*, and *a*♭ (or *g*♯) are respectively the leading-tones. Thus:

Ex. 248. *1)

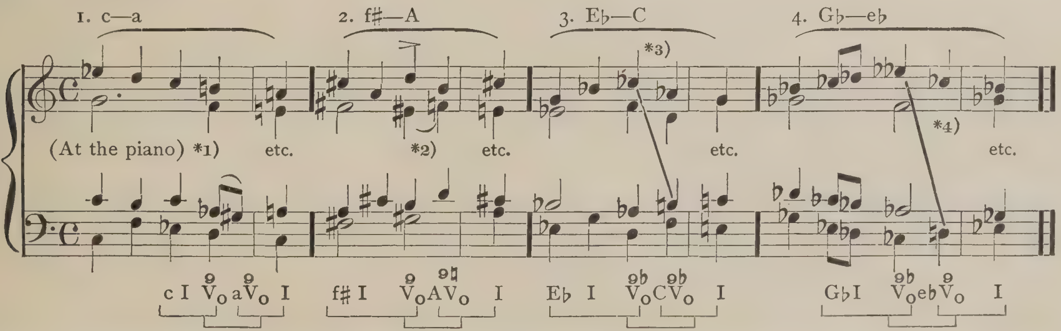


*1) All of these examples in enh. modulation must be studied at the **piano.**

*2) These 4 chords correspond exactly, *in sound*, to those in Ex. 173 (which see). The modulatory distinctions obtained by making each one a separate and independent *chord of the seventh* upon the separate tones of the original chord, are apparent in the different *resolutions.* While all 4 chords of Ex. 173 resolve alike into the I of *c* minor, they each resolve, here, into a different key, according to their notation. The enh. changes are found by comparing the chords with each other.

334. It is evident, then, that wherever the dim. seventh occurs, in any of the above 8 keys (in the notation corresponding to its key), it may enharmonically change its notation to that of any other of the 8 keys, and so effect an *enharm. modulation.* For illustration:

Ex. 249.



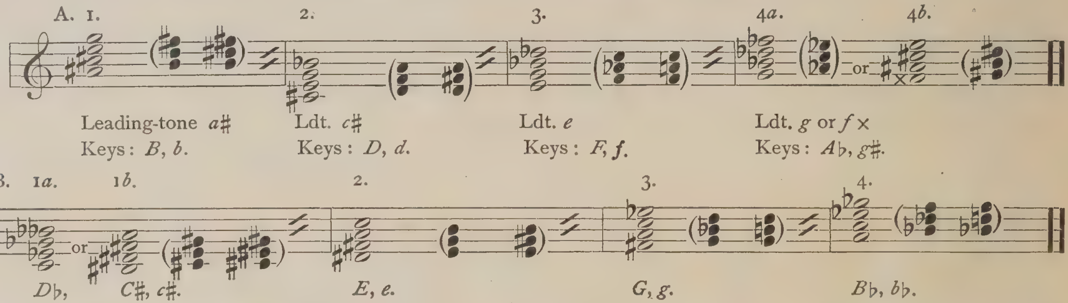
*1) This is an exchange of No. 1 and No. 4 of Ex. 248. It is not usual to make the enharm. change thus within one beat. — *2) The change from beat to beat is better, as the ear has more time to apprehend it. — *3) The enharm. change is made from one part to another (sopr. to tenor). — *4) The awkward bass-progression (*c*♭ to *d*♮) is correct because it is chord-repetition *in sound.*

335. There are only *three* chords of the diminished seventh in music **which differ in sound;** for, as just seen, those which represent four of the 12 minor keys, though differing in notation, *sound* exactly alike; in other words, one chord of the dim. seventh answers (*in sound*, though not in notation) to eight different keys, and therefore three different chords of the dim. seventh cover all 24 keys.

There are, of course, 12 of these chords in different *notations*, and there would be 24 but for the fact that the notation is similar in minor and major. The *dominant seventh*, on the contrary, actually occurs in 12 different *sounds*, as well as notations, because in no two keys (excepting each opposite mode) is it exactly alike.

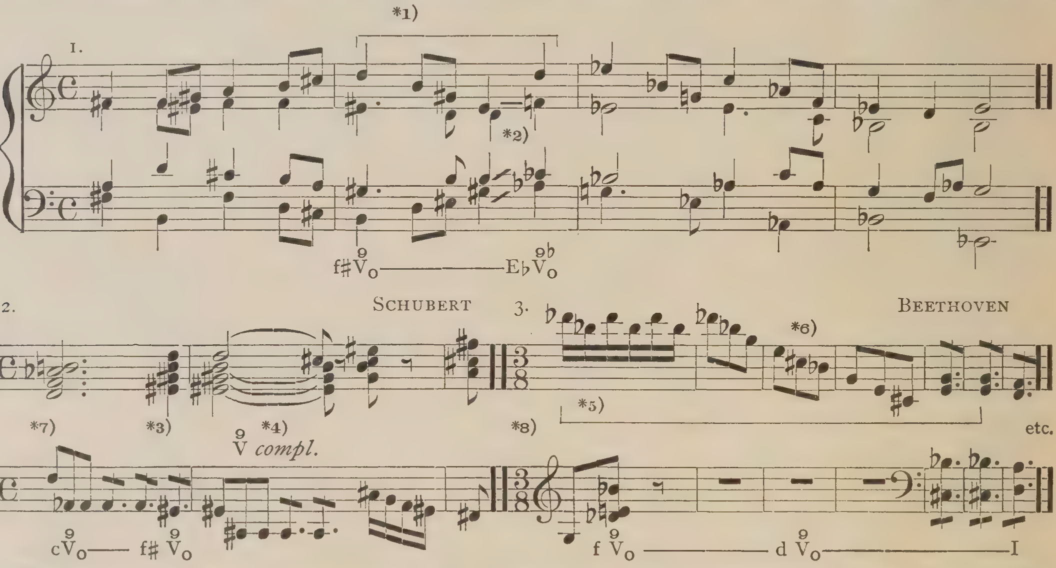
Besides the dim. seventh on the note *b*, treated in Ex. 248, there are two others, then, which lie respectively a half-step above and below the former. Their enharmonic ambiguity is determined in the same manner. Thus:

Ex. 250.



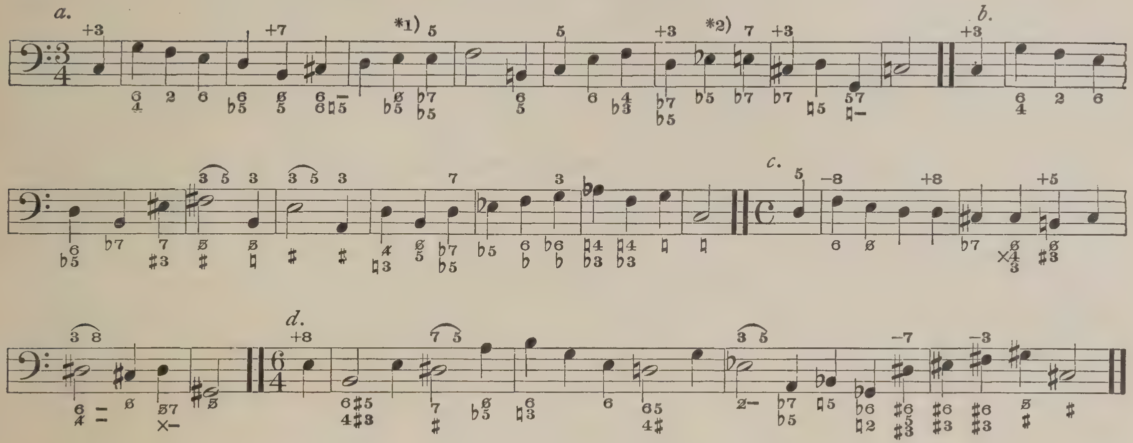
336. When the keys are remote (and, in fact, in any case) the enh. chord should be *prolonged* as far as the rhythm will permit. The longer it is dwelt upon, the less perceptible will the change of key be. Comp. par. 312. For illustration:

Ex. 251.



*1) The enharm. chord lasts a whole measure. — *2) These enharm. changes correspond to Ex. 248, No. 3*b* to No. 2. — *3) Ex. 248, No. 1 to No. 3*b*. — *4) The moment a dim. seventh becomes a *complete* V^9 (by the addition of the *root*) its identity is fixed, and it ceases to be enharmonic. — *5) The enharm. chord extends through 6 measures. — *6) Ex. 250A, No. 3 into No. 2. — *7) The effect of this change can be properly understood only by *first striking the tonic chord* of *c* minor. — *8) First strike the I of *f* minor.

EXERCISE FIFTY-ONE.



*1) The student may be at a loss to understand why, in several of the above changes of key, the modulation is not made *chromatically*, instead of enharmonically, since the former process is simpler than the latter. It will be observed that each dim. seventh (before its enharm. change) is introduced in its *legitimate* capacity as incompl. dom.-9th of the foregoing key, and this is the only *really correct* way. If, as at *2), the dim. seventh does not belong to the foregoing key, then, of course, the chromatic introduction is unavoidable. It is the common practice, however, even among classic composers, to ignore the confusing enharm. change, and progress, chromatically, directly into that form of the dim. seventh which is valid for the desired key. Thus, in Ex. 249–1, no composer would write the *a♭* and *g♯* together on one beat, but would use *g♯* alone. Similarly, in Ex. 249–2, the *e♯* on the 3rd beat would commonly be written *f♮ at once*, as chromatic alteration of the preceding *f♯*. The enharm. change in some of these examples only serves to exhibit the *actual* nature of the modulation; in other examples, however, where the actual nature is most conspicuous (as in Ex. 251), the enharm. change is obligatory.

Add **Original phrases.**

OTHER RESOLUTIONS OF THE CHORD OF THE DIM. SEVENTH.

337. The modulatory utility of the chord of the dim. seventh is by no means exhausted in the above connections, because this most ambiguous and flexible of all chords *is not limited to its original signification as incomplete dom.-ninth, and to its original location upon the leading-tone.* These are its *legitimate* signification and location; but, **as altered chord,** *it occurs in several other locations, in both the major and minor modes.* These may be found by reference to the tables of altered chords, and are as follows:

a. In Ex. 199*c*, a dim. seventh is found, as *altered* $\overset{7}{II}$ *of the major mode*, with raised 2nd and 4th steps. Its characteristic features are, that it contains the **tonic note** of its key, and *resolves into the I.*

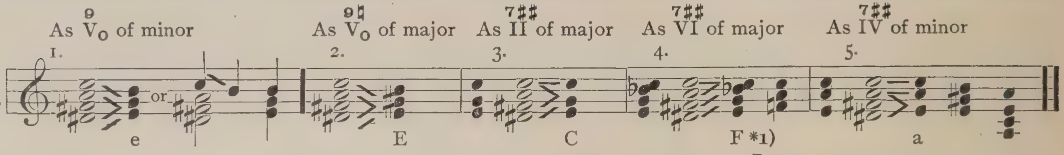
b. In Ex. 200*c*, a dim. seventh appears, as *altered* $\overset{7}{VI}$ *of the major mode*, with raised 1st and 6th steps. It contains the **dominant note** of its key, and resolves *into the* $\overset{7}{V}$.

c. In Ex. 204*a*, a dim. seventh is found, as *altered* $\overset{7}{IV}$ *of the minor mode*, with raised 4th and 6th steps. It contains the **tonic note** of its key, and resolves into the I.

d. To these should be added, in order to complete the table, the two *original* locations of the dim. seventh, as they are given in the foregoing examples. They are found, originally, in Ex. 173 (the legitimate ${}_0V^9$ of **minor**), and in Ex. 197 (the altered ${}_0V^9$ of **major,** with lowered 6th step). They both contain the **leading-tone** of their key, and resolve into the I (or first into the V and then the I).

Applied to the ch. of the dim. seventh upon *d♯* (for example) the results, without enharmonic changes, are as follows:

Ex. 252.


As $\overset{9}{\mathrm{V}_{o}}$ of minor
1.
or
e
As $\overset{9\natural}{\mathrm{V}_{o}}$ of major
2.
E
As $\overset{7\sharp\sharp}{\mathrm{II}}$ of major
3.
C
As $\overset{7\sharp\sharp}{\mathrm{VI}}$ of major
4.
F *1)
As $\overset{7\sharp\sharp}{\mathrm{IV}}$ of minor
5.
a

*1) *F major*, according to 337*b*; but *f* **minor** may also be taken, in consequence of the $\overset{7}{\mathrm{V}}$, which resolves into both modes.

338. The principles of enh. transformation explained in par. 333 (which review) apply, self-evidently, to the ch. of the dim. seventh in *all* of its possible significations. Therefore, the chord at Ex. 252, No. 3 will be found not only as $\overset{7\sharp\sharp}{\mathrm{II}}$ in *C* major (whose **tonic note** it contains) but as II^7 **in all the four major keys** of which its four tones are the **tonics,** namely, *C*, *A*, *F♯* (or *G♭*), and *D♯* (or rather, *E♭*). Similarly, Ex. 252, No. 4 will be found as $\overset{7\sharp\sharp}{\mathrm{VI}}$ in all the **four major keys** of which its tones are the **dominants** (337*b*). And Ex. 252, No. 5 belongs as $\overset{7\sharp\sharp}{\mathrm{IV}}$ to the **four minor keys** whose **tonics** it embraces (337*c*). In each of these four keys the dim. seventh has a *different notation; i.e.*, is enharmonically changed, of course; but it retains the *same chord-name* throughout.

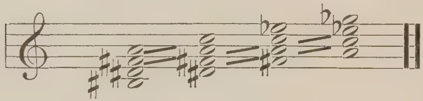
339. Summing up these possibilities, it appears, then, that any one single chord of the dom. seventh will occur, **in some notation or other,**

in the 4 *minor* keys (as $\overset{9}{\mathrm{V}_{o}}$) } of which it contains the *leading-tones;*
and 4 *major* keys (as $\overset{9\flat}{\mathrm{V}_{o}}$) }
in the 4 *minor* keys (as $\overset{7\sharp\sharp}{\mathrm{IV}}$) } of which it contains the *tonics;*
and 4 *major* keys (as $\overset{7\sharp\sharp}{\mathrm{II}}$) }
and in the 4 *major* keys (as $\overset{7\sharp\sharp}{\mathrm{VI}}$) of which it contains the *dominants.*

In this manner it is easy to determine the *keys* to which the chord will belong, and the *notation* then simply agrees with the key (and chord) in question. The *resolution* of each chord is also very simple: excepting the altered VI^7, they all progress *directly into their I*. See par. 337*a–d*.

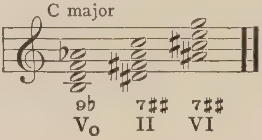
The following table exhibits the notations of the dim. seventh on *b♯* (or *c♮*) in the above 20 keys.

Ex. 253.



As $\overset{9}{\mathrm{V}_{o}}$ of c♯ — e — g and b♭ } with the *leading-tone:* res. into the I.
" $\overset{9\flat}{\mathrm{V}_{o}}$ of C♯ — E — G — B♭ }
" $\overset{7\sharp\sharp}{\mathrm{IV}}$ of f♯ — a — c — e♭ } with the *tonic:* res. into the I.
" $\overset{7\sharp\sharp}{\mathrm{II}}$ of A — C — E♭ — G♭ }
" $\overset{7\sharp\sharp}{\mathrm{VI}}$ of D — F — A♭ — C♭ (B) with the *dominant:* res. into the $\overset{7}{\mathrm{V}}$.

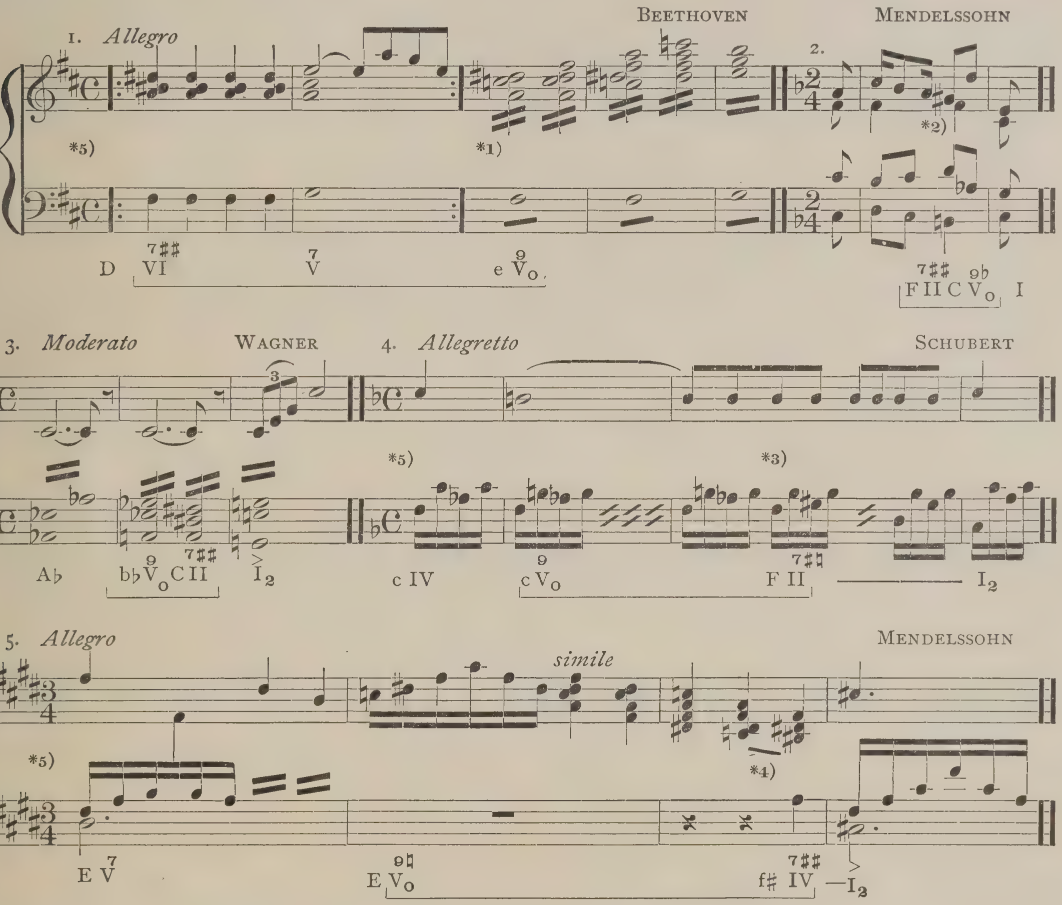
There are only four, of all the 24 keys, which are not represented by this dim. seventh, namely, *d*, *f*, *g♯* and *b* (those *minor* keys whose *dominants* occur in the chord), and even these are ultimately obtainable. See Ex. 252, Note *1). *All the major keys are represented*, not only by *this* chord, but by *each of the three dim. sevenths*. It has been seen that each major key contains *all three* of these chords, thus:


C major
$\overset{9\flat}{\mathrm{V}_{o}}$
$\overset{7\sharp\sharp}{\mathrm{II}}$
$\overset{7\sharp\sharp}{\mathrm{VI}}$

which accounts for *each single one* occurring in *all* the major keys (in four different notations).

340. From this it is manifest that *any* chord of the dim. seventh may serve as a modulatory medium between any of the 12 major and 8 minor (*i.e.*, 20) keys in which it occurs. That is to say, the dim. seventh in Ex. 253 can be introduced (probably from a tonic chord) in *any* of the 20 given keys and then changed and resolved into *any other* of the 20. In modulating along any of the 4 *vertical* rows of keys, no enharmonic change is necessary; but in modulating from any row into another row (to the right or left, in this table), the notation must be altered. For illustration:

Ex. 254.


1. Allegro
BEETHOVEN
*5)
*1)
D VI 7♯♯
V 7
e V₀ 9
2.
MENDELSSOHN
*2)
F II 7♯♯ C V₀ 9♭ I
3. Moderato
WAGNER
A♭
b♭ V₀ 9 C II 7♯♯
I₂
4. Allegretto
SCHUBERT
*5)
*3)
c IV
c V₀ 9
F II 7♯♮
I₂
5. Allegro
MENDELSSOHN
simile
*5)
*4)
E V 7
E V₀ 9♮
f♯ IV 7♯♯
I₂

*1) By changing the *b*♯ (of the first measure) into *c*♮, the chord loses its *D* major signification and is turned into *e* minor. — *2) Par. 337*a*. — *3) The same chords as at *2), but in reversed order. — *4) The same chords as at *1), but in different keys. — *5) Strike first the tonic triad of the key.

341. The ready application of this complicated cluster of modulatory resources demands a *thorough* acquaintance with the different *notations* and *names* of the chords of the dim. seventh, and with the introduction and resolution of each, according to the key it is in.

It may be remarked, that there are two different ways of studying the modulatory facilities of the ch. of the dim. seventh: 1st, at the *table*, with strict regard to the *notation* and actual harm. signification of the chord; and 2nd, at the *piano*, without regard to the notation, but simply defining the location and progression of the chord according to par. 339. The latter is the more *practical;* and, if preceded by a thorough solution of Exercise 52*A* and *B*, is almost more recommendable than the former.

FUNDAMENTAL PRINCIPLES.

A chord of the dim. seventh occurs, as *legitimate* chord, in the 4 minor keys of which its four tones are the respective leading-tones.

A chord of the dim. seventh occurs, as *altered* chord, in the four major keys of which its tones are the leading-tones; also in the 4 major and 4 minor keys of which its tones are the tonics, and in the 4 major keys of which its tones are the dominants.

The notation of the chord agrees with its key.

Each of the three dim.-seventh-chords is a modulatory medium between *any* of the 20 keys in which it may occur.

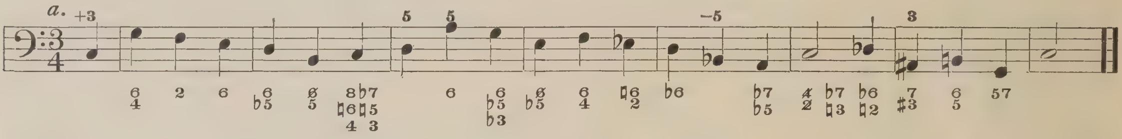
EXERCISE FIFTY-TWO.

A. The chords in Ex. 253 are to be written out *separately, with their* 20 *corresponding progressions*, always commencing with the tonic chord of the respective key. Ex. 252 serves as a model.

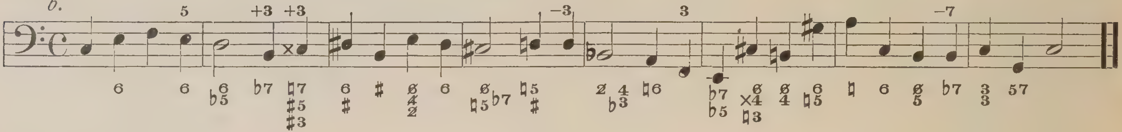
B. Define the *notations* of the *other two* dim. sevenths (the one with *c*♯ or *d*♭, and the one with *b*♮ or *c*♭) in the 20 keys in which they may occur (par. 339), and add the introductions and progressions as at A.

C. Basses, to be worked out and analyzed as usual.

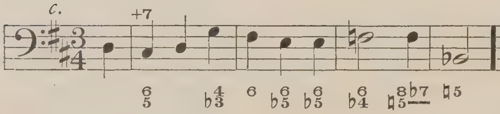
a.



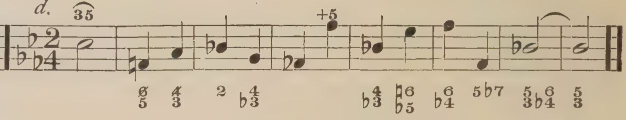
b.



c.



d.



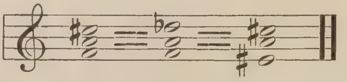
D. A large number of short **Original phrases.**

See **Rubinstein,** Prelude, op. 24, No. 5, measures 92, 93–97; 108, 109–113, 124–129. — **Rubinstein,** "Le Bal," op. 14, Mazurka (No. 8), measures 50, 51; 54, 55, 58, 59; 62, 63.

OTHER ENHARMONIC CHORDS.

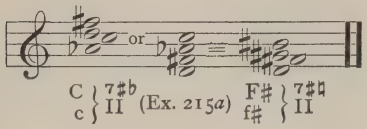
342. Besides the chord of the diminished seventh, there are a few other chords which are susceptible of *simple* enharm. transformation, namely:

a. The *augmented triad*, composed, like the dim. sevenths, of equidistant intervals, — major 3rds (or dim. 4th). For example:



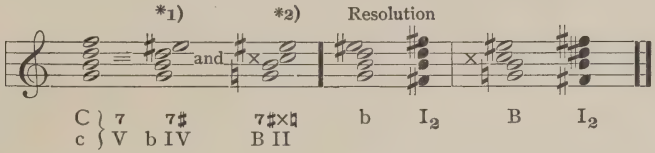
d III b♭ III f♯ III par. 257*a*.
(F B♭ A) (D♭ G♭ F) (A D C♯) par. 272*a*.
par. 271*a*.
par. 270 **(VI).**

b. Certain *mixed chords:*


or
=
C
c
7♯♭
II
(Ex. 215*a*)
F♯
f♯
7♯♮
II

343. But the most common of these comparatively inferior enharm. changes is effected with the ch. of the **dominant-seventh,** *which is similar in sound to a mixed Second-class chord of the major and minor keys whose tonics correspond to the leading-tone of the original key.* In other words, the dom.-7th will resolve not only into its own tonic, but *into the tonic a half-step below,* — the $\overset{7}{V}$ of C into the I of B, either mode; or the $\overset{7}{V}$ of F into the I of E; etc. Thus:

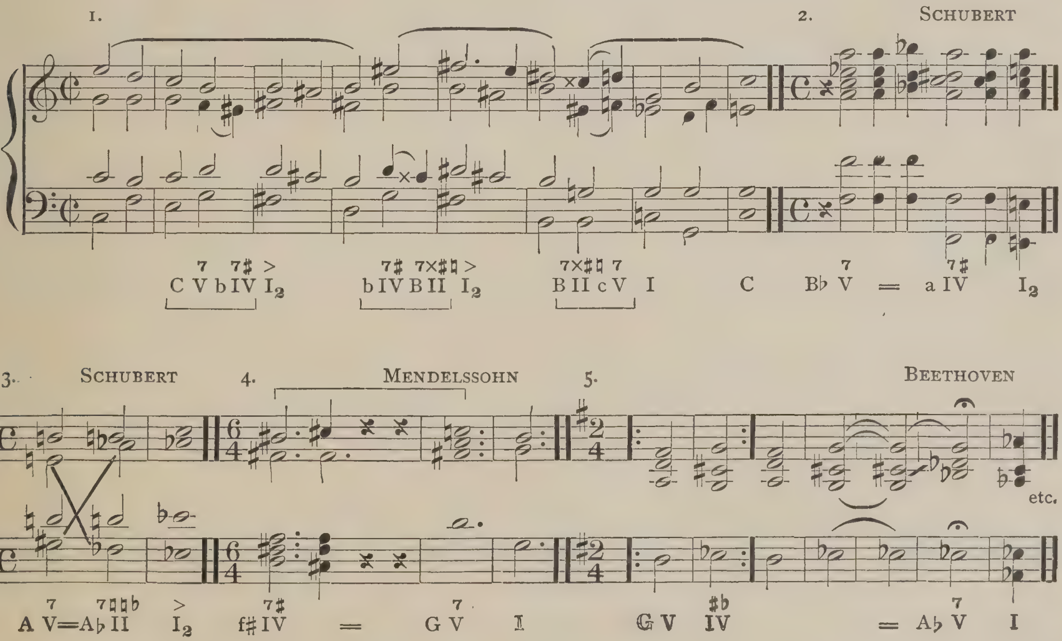
Ex. 255.


*1)
*2)
Resolution
=
and
C
c
7
V
7♯
b IV
7♯×♮
B II
b
I₂
B
I₂

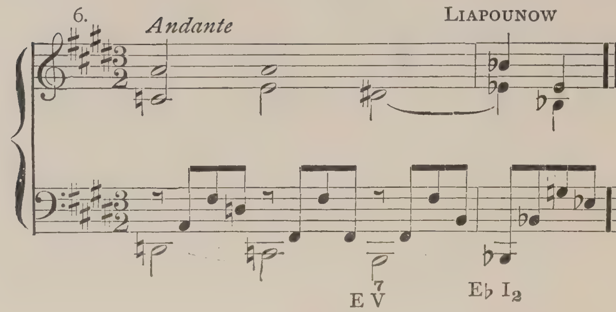
*1) Ex. 218, chord No. 4. — *2) Ex. 215, chord No. 6. Compare this treatment of the $\overset{7}{V}$ with par. 324*b*.

344. The enh. modulations with this chord, which are very common, can be made equally well in either direction, between *any two* of the four keys represented. For example:

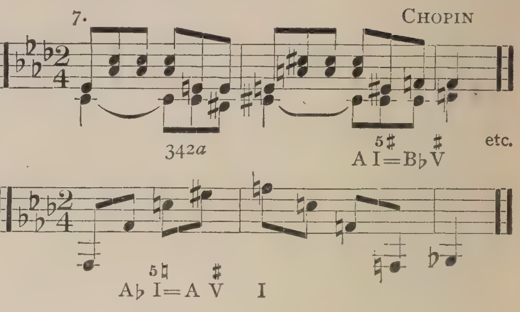
Ex. 256.


1.
2.
SCHUBERT
7 7♯ >
C V b IV I₂
7♯ 7×♯♮ >
b IV B II I₂
7×♯♮ 7
B II c V I
C
7
B♭ V
=
7♯
a IV
I₂
3.
SCHUBERT
4.
MENDELSSOHN
5.
BEETHOVEN
etc.
7 7♮♮♭ >
A V = A♭ II I₂
7♯
f♯ IV
=
7
G V
I
G V
♯♭
IV
=
7
A♭ V
I

6.


Andante
Liapounow
E V7
E♭ I2

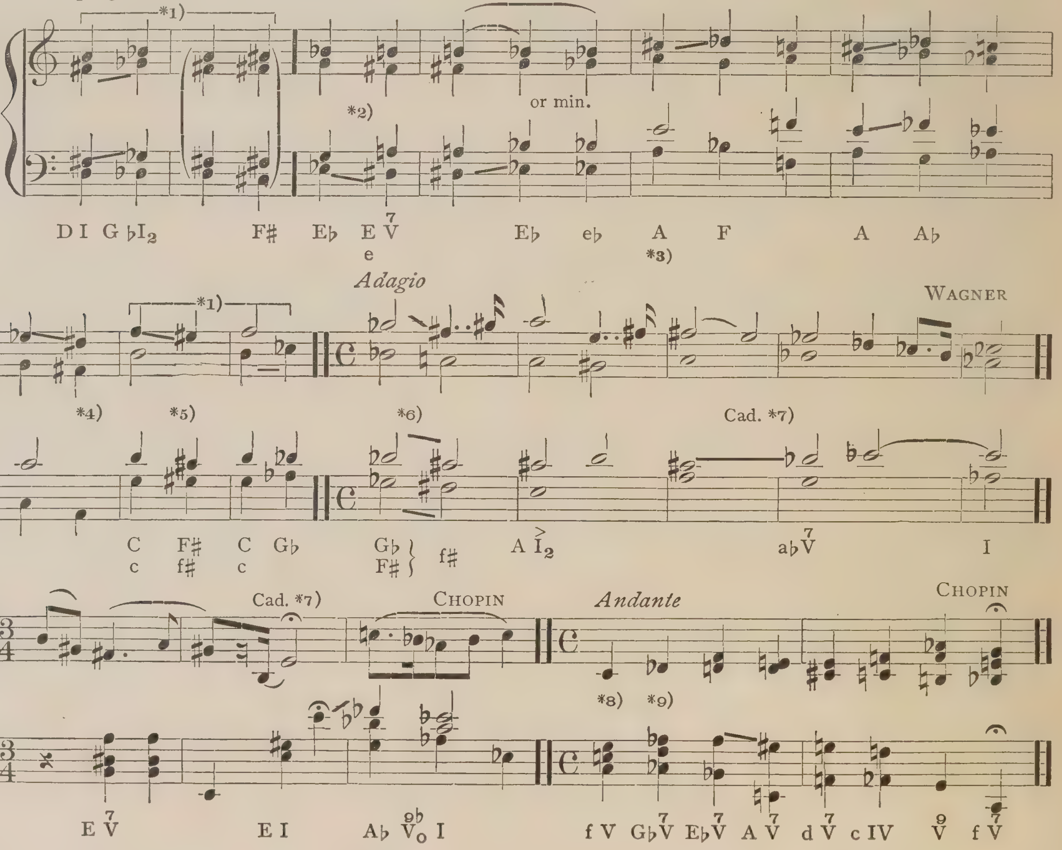
7.

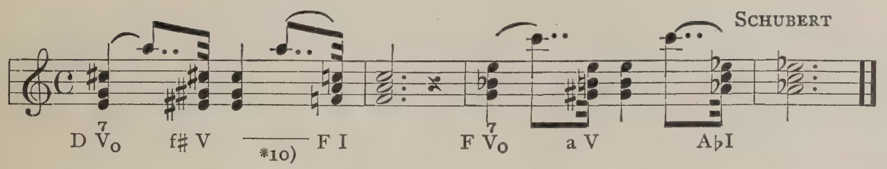

Chopin
342a
A I=B♭V
etc.
A♭ I=A V I

Compound enharmonic changes.

345. The distinction between simple and compound enharm. progressions is explained in pars. 331, 332 (which review). *Compound* changes are the most intelligible, because the diatonic or chrom. progressions which in that case accompany the enharm. change, assist the ear in following the modulation. This is impossible in *simple* enharm. chord-progressions, because there is no change in *sound*, and hence the intention of modulating is not perceptible until it has actually taken place. The following example contains only a few illustrations of the almost endless variety of compound enharm. chord-progressions:

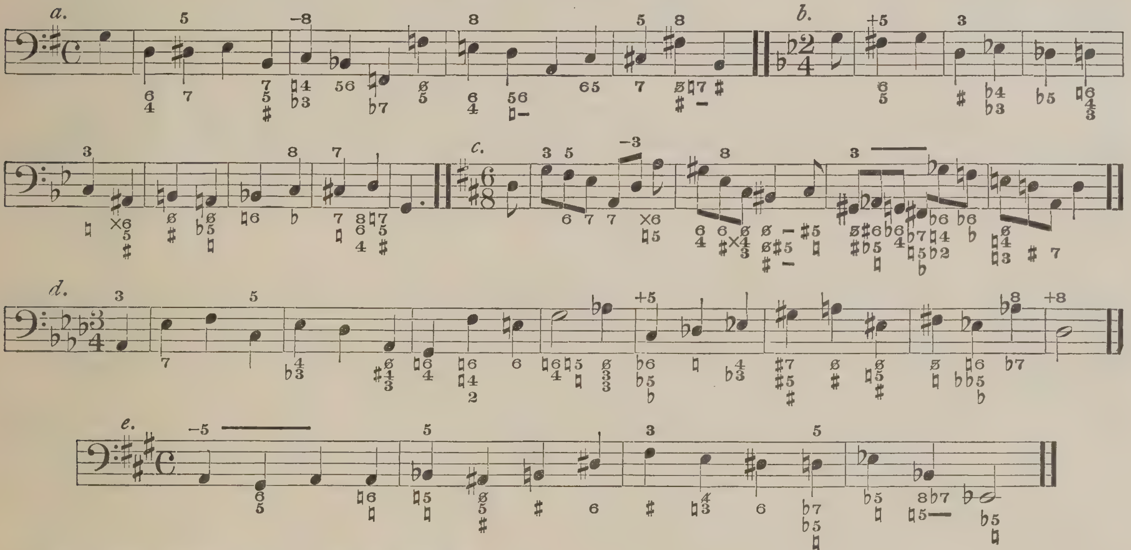
Ex. 257.


*1)
*2)
or min.
D I G ♭I2 F♯ E♭ E V7 e E♭ e♭ A *3) F A A♭
Adagio
Wagner
*1)
*4)
*5)
*6)
Cad. *7)
C c F♯ f♯ C c G♭ G♭ F♯ f♯ A I2 a♭V7 I
Cad. *7)
Chopin
Andante
Chopin
*8) *9)
E V7 E I A♭ V°9♭ I
f V G♭V7 E♭V7 A V7 d V7 c IV V9 f V7



*1) These two measures, in both cases, are actually alike. The enharm. change in one of the measures is due merely to the transition from sharps to flats. — *2) The tonic, in bass, becomes a leading-tone. Comp. Ex. 235, Note *3). — 3) This chord may be not only in *A* major, but also in *D*, *d*, *c*♯ and *E*, according to the manner of its introduction. This principle, which greatly multiplies the modulatory possibilities, applies to some extent to every chord, — especially to the concords. Comp. the first measure of Ex. 240, in which the various meanings of the chords are given. — *4) This chord may progress into the keys of *e*, *E*, *C*, *a* and *F* (Ex. 252). — *5) Ex. 243, last measure. — *6) The opposite mode, with change of notation. — *7) Cadence-modulations. — *8) First strike the tonic chord of *f* minor. — *9) This example closely resembles Ex. 243. — *10) Comp. Ex. 244, Note *4).

EXERCISE FIFTY-THREE.



Add a large number of short **Original phrases.**

PIVOTAL MODULATIONS.

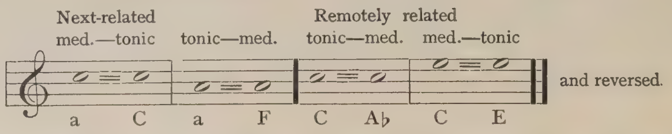
346. The most prolific of all modulatory processes is, finally, that which is made through some tone that is common to the two keys. At *any* such point of contact, — at any tone of the first key which belongs to the next key *in any conceivable harmonic capacity*, — the first key may swing over into the next, as on a pivot. Hence the term "pivotal" modulations.

This process has been observed in some of the foregoing examples, but the pivotal change of key was there the result of some other modulatory purpose, rather than the direct incentive to the act.

347. A very common group of these pivotal changes is based upon some coincidence with the *mediant* (3rd scale-step) of either key. Thus, the tonic of a key may be transformed into a mediant — with consequent change of key; or the mediant may become a tonic.

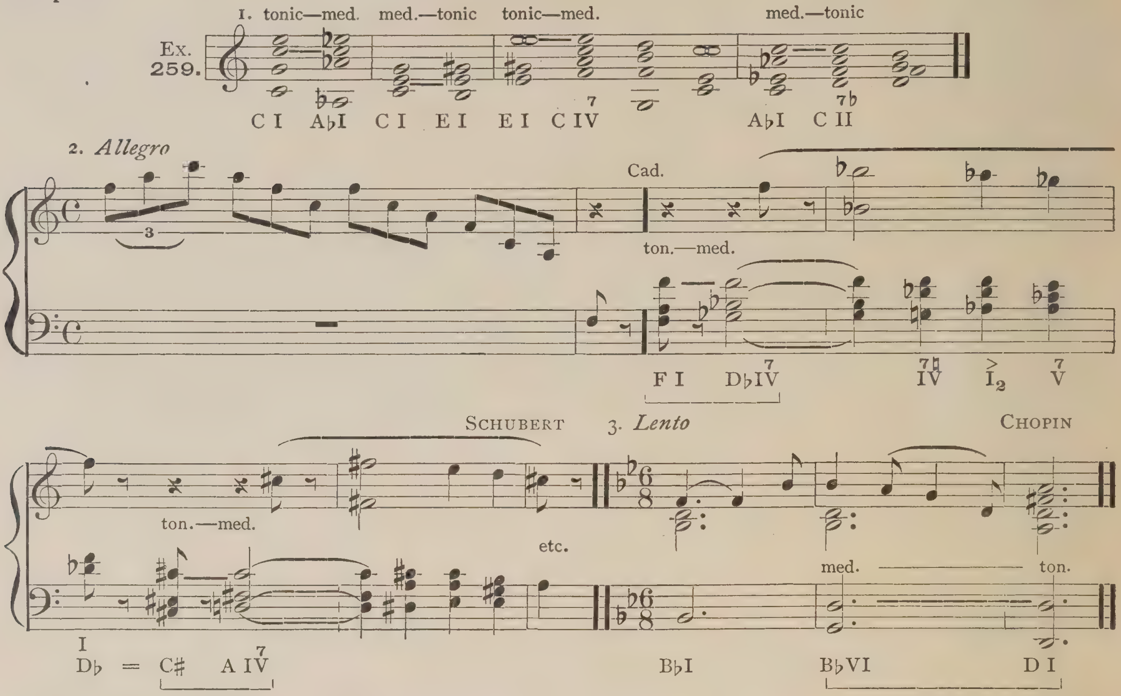
Between major and minor keys the relation is close; between *major* keys it is remote. For example:

Ex. 258.


Next-related
med.—tonic
tonic—med.
Remotely related
tonic—med.
med.—tonic
a C a F C A♭ C E
and reversed.

348. As both the tonic and the mediant belong to tonic chords, it is necessary to close the first key on its I (very rarely on the VI), and progress directly into the I ($\overset{7}{\mathrm{IV}}$, or $\overset{7}{\mathrm{II}}$) of the next key. The connecting tone usually remains in the same part.

Ex. 259.


1. tonic—med. med.—tonic tonic—med. med.—tonic
C I A♭I C I E I E I C IV⁷ A♭I C II⁷♭
2. Allegro
Cad.
ton.—med.
F I D♭IV⁷ IV⁷♮ I₂ V⁷
SCHUBERT
ton.—med.
etc.
I
D♭ = C♯ A IV⁷
3. Lento
CHOPIN
med. — ton.
B♭I B♭VI D I

These pivotal modulations, though possible at any point in a phrase, like No. 3, above, are much more likely to occur at cadences or "joints." This is illustrated in Ex. 235–1; the tonic *b♭*, at the cadence, becomes the mediant of *G♭*. Also Ex. 235–2, tonic *a* becomes mediant *a*. Ex. 236–5 may also be explained as pivotal mediant modulations, in the course of a phrase: the mediant *g* in *E♭* becomes tonic in *g* minor; the mediant of *g* minor becomes the tonic of *B♭*; the mediant of the latter becomes the tonic of *d*.

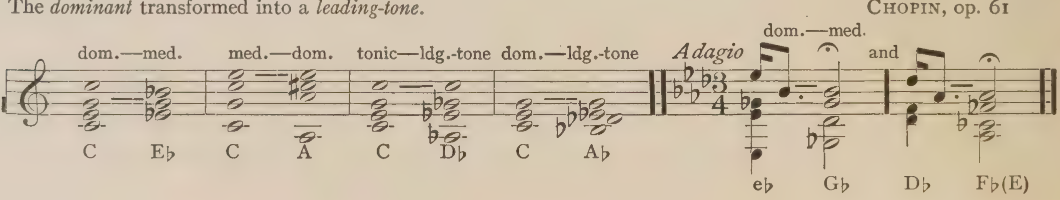
349. Other significant coincidences are:

a. The *dominant* transformed into a *mediant;*

b. The *tonic* transformed into a *leading-tone;*

c. The *dominant* transformed into a *leading-tone.*

Ex. 260.


CHOPIN, op. 61
dom.—med. med.—dom. tonic—ldg.-tone dom.—ldg.-tone
C E♭ C A C D♭ C A♭
Adagio
dom.—med.
and
e♭ G♭ D♭ F♭(E)

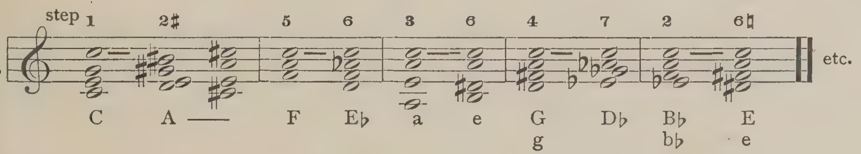
These are illustrated in Ex. 235–4; the mediant *a*, at the cadence, becomes the dominant of *d* minor. Also Ex. 235–5; the dominant *c* becomes the mediant of *A*♭ major. In Ex. 235–3, the tonic becomes a leading-tone, — see Note *3); also Ex. 235–6, the same. Ex. 257, Note *2).

350. While the connecting tones above mentioned are possibly more common than others, it is true in the most comprehensive sense that *any tone, in any harmonic significance*, may become, as pivot, a transitional medium between the keys to which it respectively belongs.

For instance, the tone *C* may be either one of the seven original scale-steps, in seven major and minor keys, — namely, in *C, c, B*♭*, b*♭*, A*♭*, a, G, g, F, f, E*♭*, e, D*♭*, d*♭ (or, as *B*♯, in *c*♯ minor). Besides these, it may be the lowered 6th scale-step (in *E* major), the lowered 7th step (in *d, D*), the lowered 2nd step (in *b* minor); as *B*♯, it may be the raised tonic (in *B* major), the raised 2nd step (in *A*), the raised 4th step (in *F*♯ and *f*♯), the raised 5th step (in *E*), the raised 6th step (in *D*, and *d*♯ minor). This one tone *C* (or *B*♯) may, then, be used as modulatory medium between *any* of these 26 keys, in either direction. And the same applies, of course, to *every* tone in music.

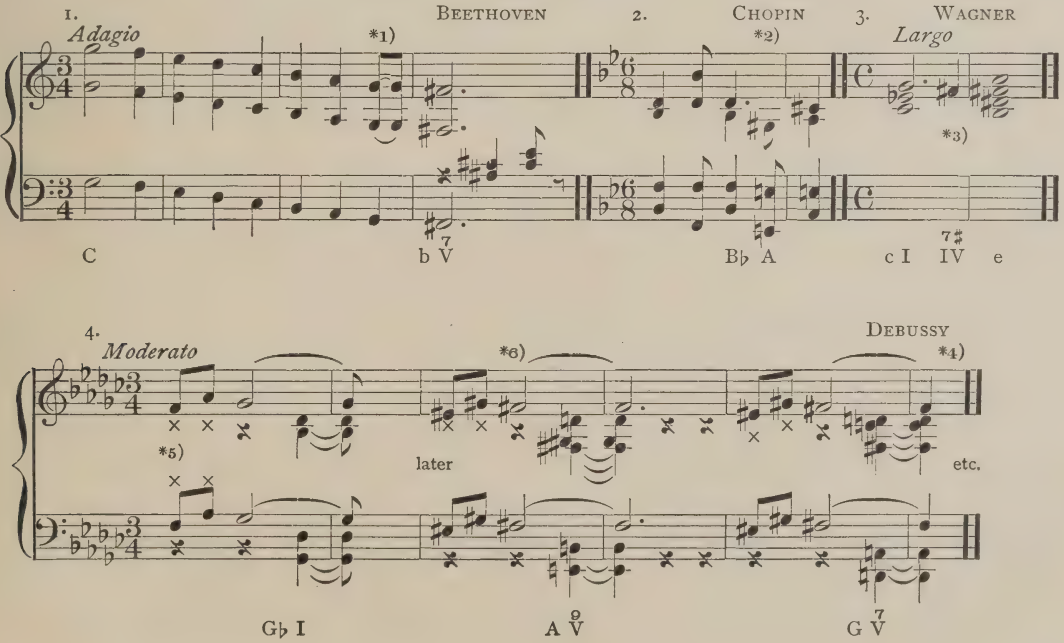
351. There is only one important limitation to this sweeping principle, and that is that it is far more natural to transform **an inactive tone into an active one,** than the reverse; best to change a tone as tonic, 3rd or 5th step, into a 4th, 6th, 7th step, or any other active tone. Hence, par. 349*b* and *c* are very common, but the reverse very rare. For example:

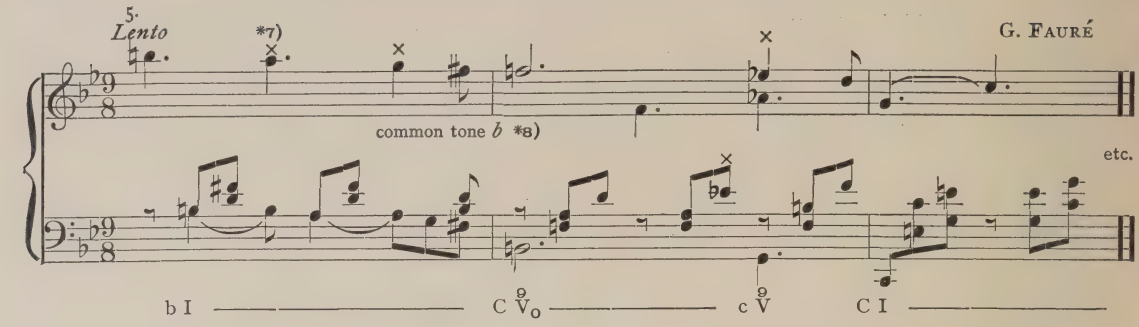
Ex. 261.

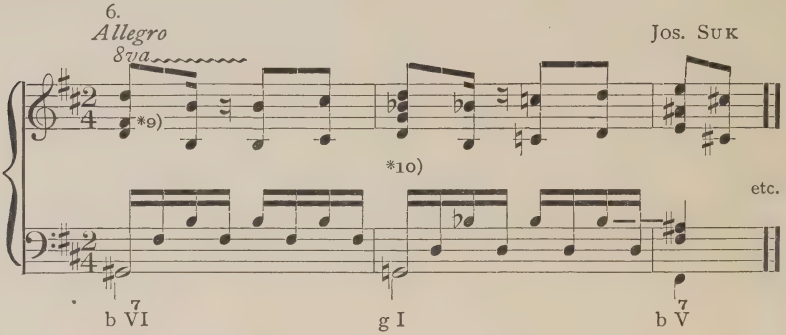


Additional illustrations:

Ex. 262.





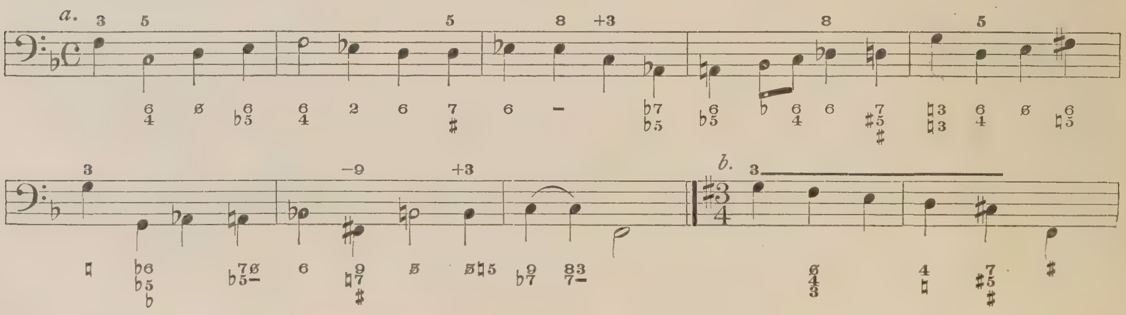


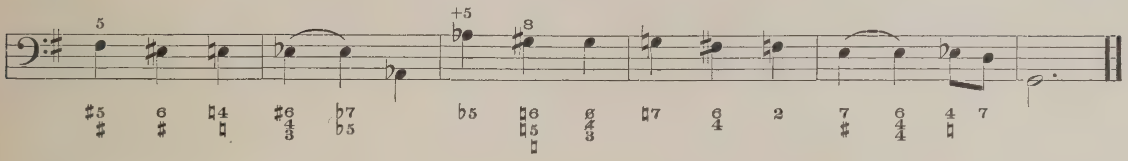
*1) The 5th step, *g*, becomes a 6th step of *b* minor; an *inactive* tone transformed *into an active one.* Par. 351. — *2) The pivotal tone *d* is the 3rd step, becoming a 4th step. — *3) The common tones are *f*♯ and *e*♭ = *d*♯. — *4) From "*La plus que lente*," given here slightly simplified. — *5) The notes marked × are embellishments. — *6) The pivotal tone is *g*♭ = *f*♯, — 1st step, then 6th, then 7th step. — *7) The lowered 7th step. — *8) The common tone is *b*♮, throughout; first as inactive tonic of *b*, then as active leading-tone of *C*. Observe that the second measure is all chord-repetition; also the change of mode from major to minor and back. — *9) This 5th step (*f*♯) becomes a leading-tone. — *10) The unusual substitution of *g minor* (for the expected major) is due to the coincidence of *b*♭ and *a*♯, — a mediant becoming a leading-tone (at the beginning of the next measure).

These illustrations might be multiplied indefinitely. It is left to the student, who, if he will *observe* what he sees in the literature he uses, can be at no loss for confirmation of this principle, — and all the others, — of modulation.

EXERCISE FIFTY-FOUR.

A. Work out these basses, and mark every pivotal tone.





B. A large number of brief **Original phrases.**

SECTION 5. THE HARMONIZING OF MELODIES, WITH MODULATIONS.

352. *a.* Harmonizing a melody with modulations is, *as far as each separate key extends*, precisely the same process as before. Review Ex. 178.

b. The only new thing that presents itself here, is to determine *what changes of key are necessary, and where the changes take place.* From the point where a key begins, until it is exchanged for another, the melody-notes are harmonized in the usual manner, *according to the scale-steps of that key.*

353. The changes of key, or the points where modulations are to occur in the harmony, may be defined:

1st, by *accidentals in the melody itself;*

2nd, by the *general construction of the melody*, which affords more or less distinct evidence of intentional modulations; and

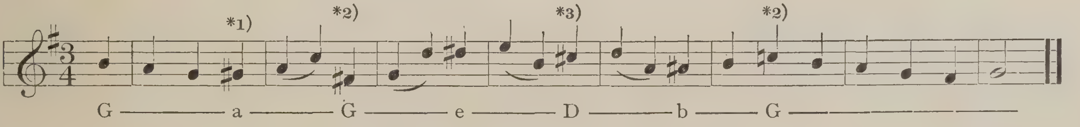
3rd, by *option*, at any point in the phrase where the melody will admit of a change of key.

1st. Melodies with Indicated Modulations.

354. *Accidentals* in the course of a melody indicate either altered chords, or changes of key. (The former may be set aside for the present.)

This is exhibited in the following example, in which the keys are indicated below the notes at the points where they *begin:*

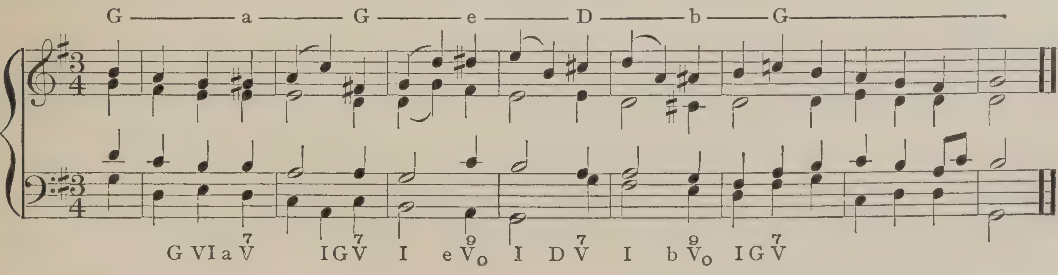
Ex. 263.



*1) *a minor,* — not major. The keys should maintain *near* relationship, as much as possible. — *2) These apparently superfluous accidentals are necessary, as contradiction of the preceding key. — *3) *D major,* not minor.

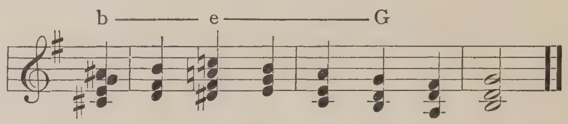
Applying the fundamental rule of modulation (par. 302, pars. 298, 300) to this melody, the result is:

Ex. 264.


G — a — G — e — D — b — G
G VI a V7 I G V7 I e V9o I D V7 I b V9o I G V7

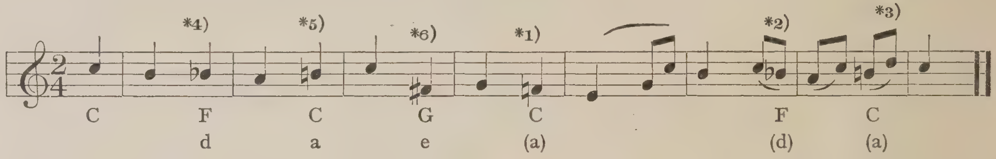
355. *a.* In the above example, the accidentals proved to be the *leading-tones* of the required keys, with the single exception of *c*♮ in the 6th measure, which merely served to indicate that the preceding key had been *cancelled.* Such "negative" modulations as the latter generally leave a choice between the *two relative keys.* For instance, the *c*♮ in the above example indicates that the *two-sharp* key (*b* minor) has been reduced to a *one-sharp* key; but there is nothing in the *c*♮, nor in the tones which immediately follow, to define *which* of the one-sharp keys (*G* or *e*) is intended. Consequently, either *G* maj. or *e* min. may be taken. Thus:

Ex. 265.



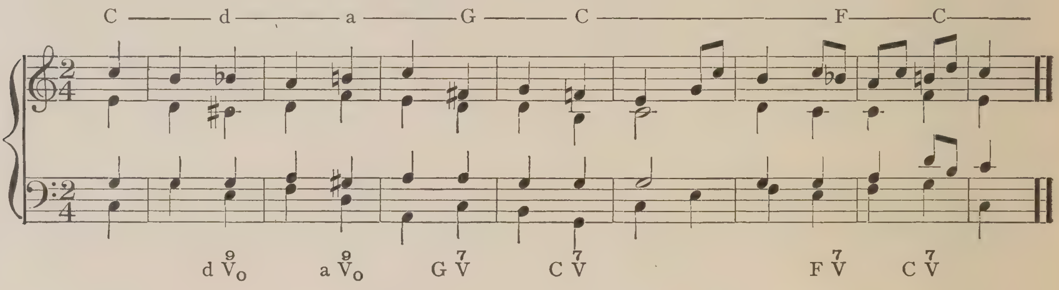
b. This choice between the two *relative* keys (those with the same signature) is possible at other points also, and usually depends only upon the succeeding melody-notes. For example, the *f*♯ in the 2nd measure of Ex. 264 might also be regarded as an indication of *e minor;* but the two slurred notes which follow (*g–d*) prove that *G* major is intended. The same applies to *c*♯ in the 4th measure, which might also be *b minor*, but for the following *d–a*. Compare par. 242, rule 1. — This point is illustrated in the following melody:

Ex. 266.



*1) *a* minor is not possible, on account of the next measure. — *2) *d* minor is impossible, because of the *c*♮ which is slurred with the *b*♭. — *3) Must be *C* major, on account of the cadence. — For these reasons it is best to take *d* minor at *4), and *a* minor at *5); at *6) *G major*, because of the two preceding *minor* keys. Thus:

Ex. 267.



2nd. Melodies with Intimated Modulations.

356. There are certain features in the *construction* of a melody which afford almost, if not quite, as unmistakable signs of a necessary change of key, as accidentals do. The strongest intimations of this kind are found,

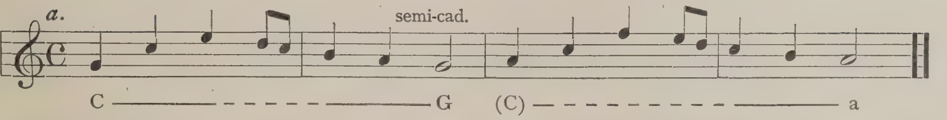
1st, at the *cadences;* and

2nd, in the arrangement and treatment of certain scale-steps, — especially the *leading-tone.*

In the first of the following melodies there are no accidentals to indicate positively that the original key (*C*) is anywhere abandoned. But it is nevertheless *probable* that the semi-cadence is made in *G*, and *certain* that the perfect cadence is in *a* minor.

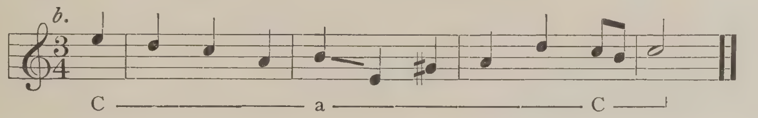
And it is also certain that the 3rd measure does not continue in *G* major, because the arrangement of tones does not conform to that key; especially the *f*♮ (3rd beat) which indicates either a return to the original key (*C*), or the point of transition into the ultimate *a* minor.

Ex. 268.



Ex. 265 also illustrates this principle: the modulation from *e* minor back to *G* major is only intimated by the cadence note. If the last note were *e* instead of *g*, as it might easily be, it would continue *e* minor to the end.

In the following melody:

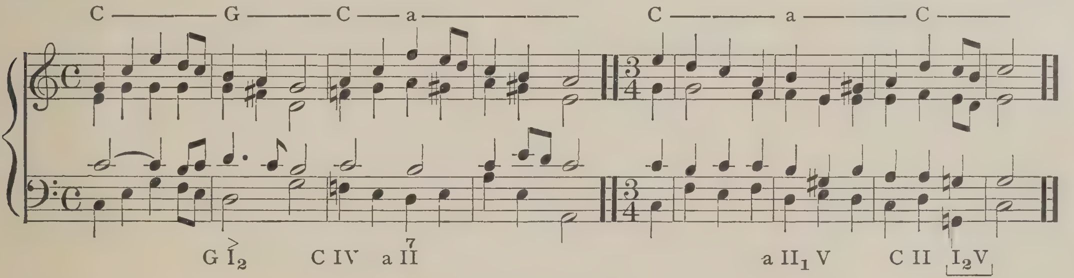


the key of *C* maj. evidently ceases at the end of the first measure, because the *b* in the next measure *cannot be the leading-tone of C, and progress as it does, downward to e.* It is therefore obvious that *a* minor (indicated by *g*♯) extends back to this *b*. — The final cadence must be made in *C*, of course.

How far "back" such intimated modulations reach, or, in other words, at exactly what beat the new key will *begin*, depends upon circumstances, and will generally be determined by experiment. Comp. par. 242, rule 4.

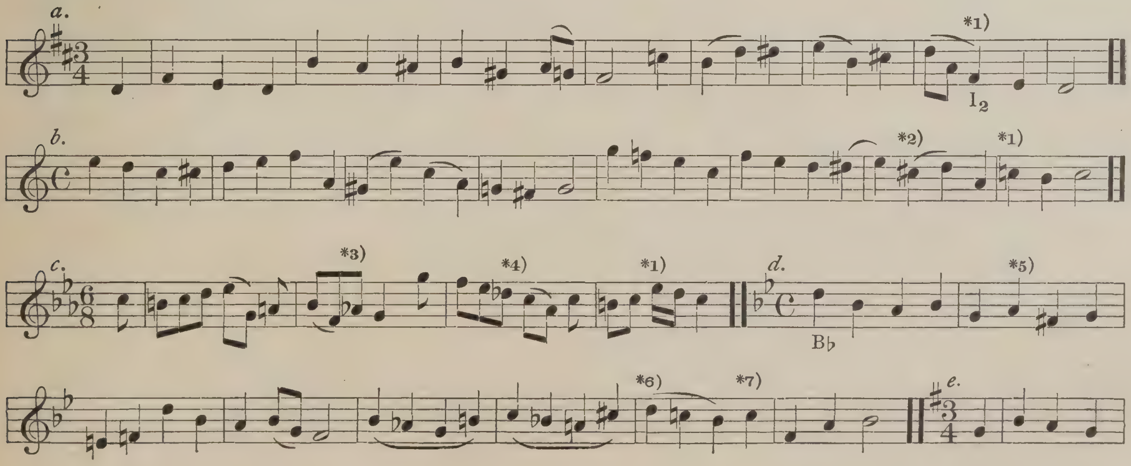
The above melodies will then be harmonized about as follows:

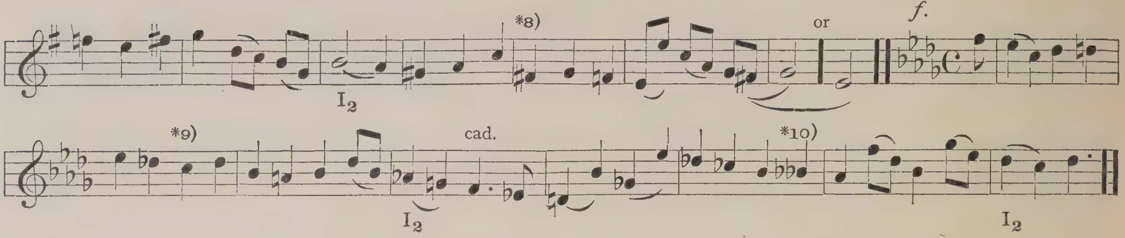
Ex. 269.

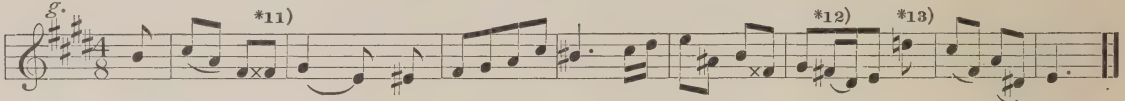


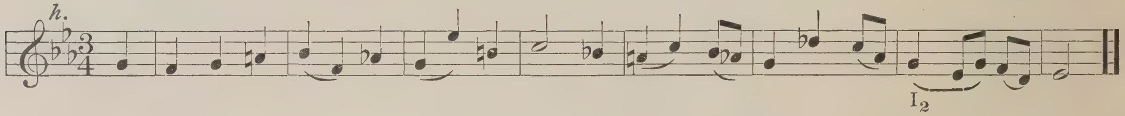
EXERCISE FIFTY-FIVE.

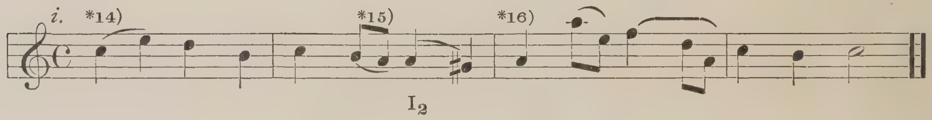
Melodies with indicated and intimated modulations.











*1) Ex. 146, Note *2). — *2) *d* min. follows *e* min. directly, despite the lack of relation, because of the sequence. Comp. Ex. 263, Note *1). — *3) *E♭* or *c;* the former is better, for variety. — *4) *A♭* or *f*. — *5) *g* min. begins at this (2nd) beat, because *a* cannot, in this case, be harmonized as leading-tone. — *6) Here the I of *D major* should be used, as V of *g* minor. — *7) II₁ of *B♭*. — *8) *G* or *e*. — *9) I of *A♭*, as V of *D♭*. — *10) Lowered 6th step. — *11) Evident from the following slur, that this is the raised 2nd step of *E*. — *12) *E* or *c♯*. — *13) Probably *f♯*, on account of the following slur. — *14) *C* major. — *15) *a* minor begins on this beat, — bass note *d*. — *16) Best to use *A major* here, as V of the coming *d*.

3RD. MELODIES WITH OPTIONAL MODULATIONS.

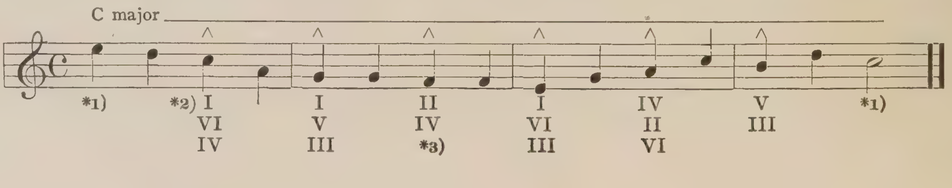
357. The possibility of modulating, in the harmony to a given melody, is by no means limited to those points at which the *melody itself* demands a change of key. *Transient* modulations may be made *at almost any accent*, and even upon some unaccented beats, by simply intensifying the *triads*, at those places, into the *keys* which they respectively represent.

358. The rule for these optional modulations is as follows: *Every major or minor* **triad** ***1)** *which occupies an* **accented** *beat, may become a* **tonic triad** (of the corresponding key, of course), *provided the preceding melody-note can be harmonized with any* **dominant** *chord of that key.*

*1) This modulatory principle is limited to major and minor *triads*, these being the only chords which represent major and minor *keys*. Four-tone chords, and discords, do not represent keys.

The triads are first defined according to the scale-steps of the *original* key, upon the usual assumption that each melody-note may be a *root*, a *third*, or a *fifth* of some chord of the key. This ensures the necessary next-relationship, and decides which keys are represented. For illustration:

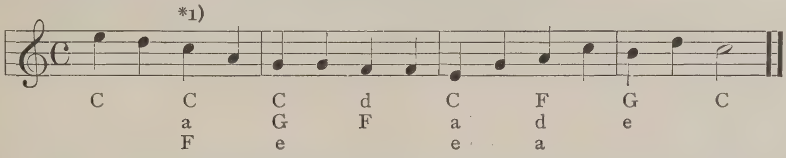
Ex. 270.



*1) The *first* and *last* accents must, of course, be excepted. — *2) This melody-note *c* (the 1st step of the scale) may, according to former rules, be harmonized with the I, VI or IV and inversions: in other words, *it may be a* **root,** *a* **third,** *or a* **fifth.** — *3) Here, only two triads are available, those on *d* and *f*. The triad on *b*♮, being a diminished chord, does not represent any key.

359. *a.* These major and minor *triads* of the original key may, as stated in par. 358, be regarded as representatives of their corresponding maj. and min. *keys*, upon the conditions mentioned. Thus:

Ex. 271.

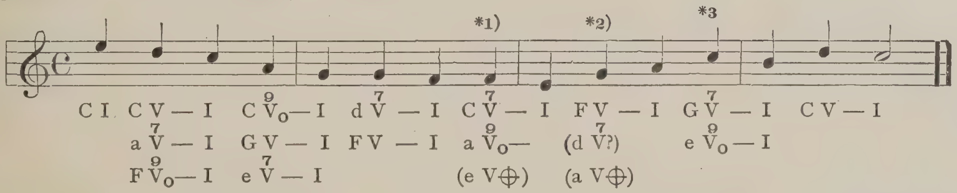


*1) The triads I, VI and IV of the original key (*C* major) are the tonic triads of *C* major, *a* minor and *F* major respectively. And the keys at the other accents are found in the same way.

b. In order to intensify these simple "chords" into the complete impression of "keys," they must be associated with the respective leading-tones, or, more exactly, must be **preceded** by the necessary modulatory (*dominant*) chord. *If the* **preceding** *melody-tone will admit of this*, the key in question is possible; otherwise not.

Applying this test to the above melody, the result will be:

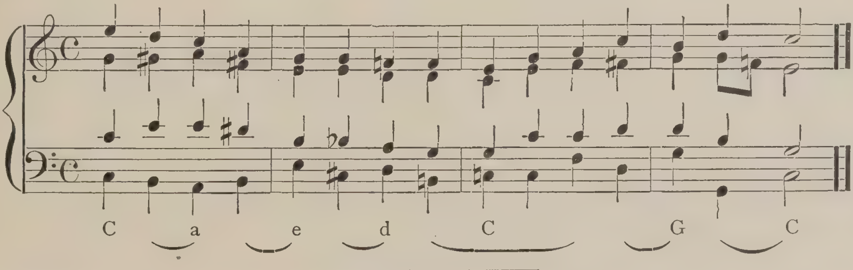
Ex. 272.



*1) *e* minor is not possible, because it has no *f*♮. And *a* minor is a little doubtful on account of the *g*♮ which *follows;* from which it appears that, as usual, some consideration must be taken of the *following* tone, also. — *2) In *d* minor, the *g* in soprano would be an *ascending* seventh (of the $\overset{7}{V}$), and is therefore doubtful. But see par. 218*a*. — *a* minor is impossible, as it has no *g*♮. — *3) *e* minor is doubtful, because of the *d*♮ in the next measure.

c. This melody may be harmonized, then, 1st, in *C major throughout;* or, 2nd, any one of the above keys may be introduced as *single* passing modulation; or, 3rd, *several or all* of them may be utilized, in a great variety of successions. The following modulatory lines are possible: 1. *C* major throughout. 2. *C—C—G—C—C—F—C— — —;* 3. *C—a—e—d—C—C—G—C;* 4. *C—a—G—F—a—C— —;* 5. *C—F—C—d—a—C—G—C;* 6. *C—F—G—C—C—F—G—C;* and so forth. For example, No. 3:

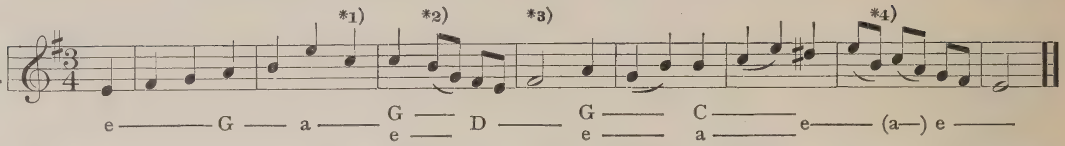
Ex. 273.



---

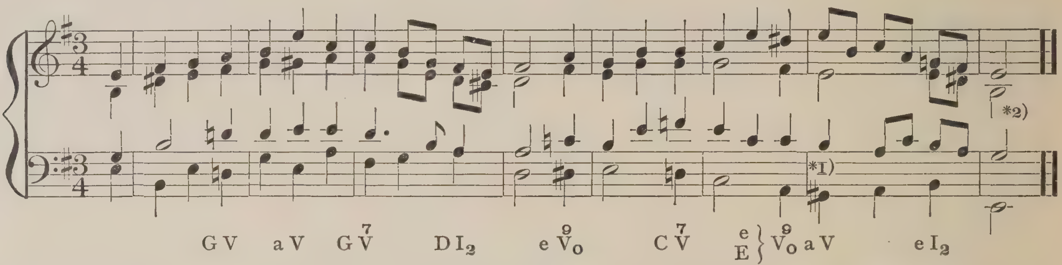
360. Melodies in triple rhythm often admit of such optional modulations at *unaccented* beats also. The following period, which may be harmonized in *e* minor throughout (as there are no positive contradictions of the original key anywhere in its course), evinces a strong inclination towards *D* major at the semi-cadence, and admits of other passing modulations, as follows:

Ex. 274.



*1) The indications of *a minor* are so strong through this whole measure (the first two tones representing its V, and the last tone its I), that the unaccented (3rd) beat suffices for the mod. — *2) The slurred 2nd beat suggests *G* major, although *unaccented*. — *3) Could not very well be the relative, *b* minor. — *4) There are the same indications of *a minor* here, as at Note *1); but there is hardly time to make the mod., except by taking the *E major* I on the first beat (as V of *a* minor). The result is:

Ex. 275.

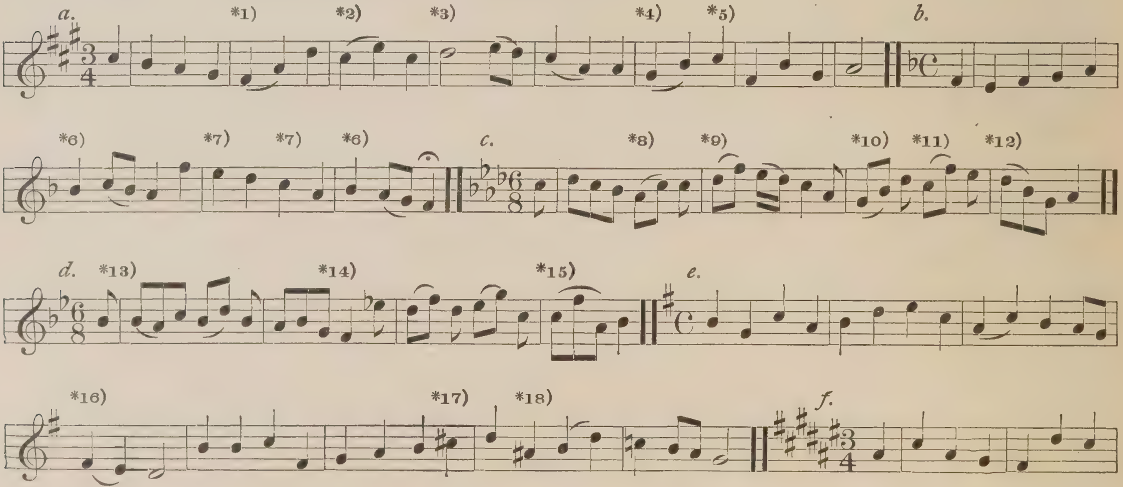


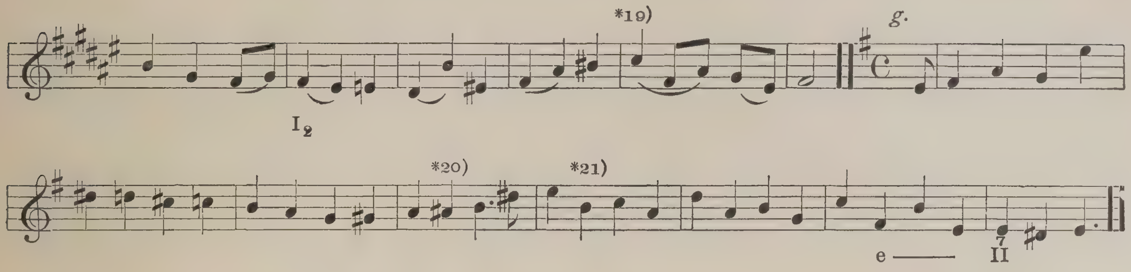
*1) Ex. 274, Note *4). The only difference between *E major* and *minor* is the *g*♯ in bass, which is preferable to *g*♮, on account of the following *a* minor. Compare par. 313. — *2) This melody may, of course, as already stated, also be harmonized in *e* minor throughout, without the optional passing modulations.

EXERCISE FIFTY-SIX.

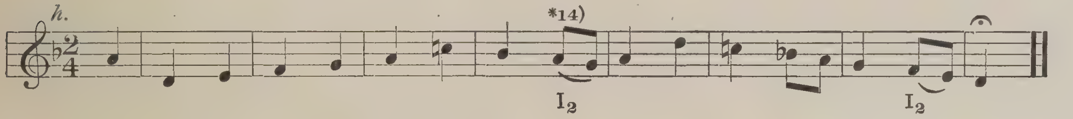
A. Harmonize Ex. 272 (perhaps at the piano, — the *bass alone* in the left hand) in the 6 ways shown in par. 359*c* (excepting No. 3, which is given in Ex. 273). — And also Ex. 274, first in *e* minor throughout, and afterwards with *G* major in the 5th measure and *a* minor in the 6th measure.

B. Harmonize the following melodies; each in *at least two ways*.





h.



*1) *f♯* minor. — *2) *A* maj. — *3) *D* or *b*. — *4) *E* major, — not *c♯*. — *5) *A* maj. probably begins at this beat (as I), because *E* *ends* on the preceding beat. It might, also, be the $\overset{7}{V}$ of *b*, in view of the following tones. — *6) *B♭* or *g*. — *7) *C* or *a* at each of these accents; probably *C* first. — *8) *A♭* or *f*. — *9) *D♭* or *b♭*. — *10) *E♭*, — not *c*. — *11) *f* minor, — not *A♭*. — *12) Not *D♭*, unless the following slur is ignored, — which is possible. — *13) See Ex. 144. — *14) *F* major. — *15) Might be *F* major. — *16) *D* maj. I_2. — *17) From this point the melodies also contain *indicated* modulations. — *18) The following slur (*b* and *d*) is so suggestive of *G* major, that this *a♯* might easily be a *raised 2nd step* of *G*. But *b* minor is also possible. — *19) These slurred notes must be the I_2 of *F♯*, therefore the preceding *b♯* is a raised 4th step. — *20) This *a♯* may be a raised 4th step. — *21) A strong intimation of *a* minor.

C. To this exercise may be added some, or all, of the preceding exercises in melody harmonization. See the final Note to Exercise 36.

PART IV.

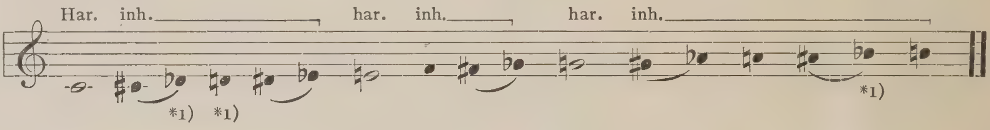
THE INHARMONIC (NON-HARMONIC) INTERVALS.

361. *a.* When 3, 4 or 5 tones are combined in thirds, they mutually accord, and constitute a harmonic body which affects the ear agreeably. Such tone-combinations are called *chords*, and the separate tones are *harmonic* intervals, or *chord*-intervals.

b. A body of tones, united in intervals which do not conform to this rule for the construction of chords, is called an **inharmonic** combination, and the tone or tones which disagree with the structure of thirds are Inharmonic intervals. Par. 46*c*.

c. The inharmonic tones are those *which lie* **between, or beside, the chord-intervals,** and, consequently, do not belong to the chord. For illustration, in the I of *C* major the tones *c–e–g* are harmonic, but all the other (intermediate) tones, diatonic and chromatic, are inharmonic, *in connection with that chord.* Thus:

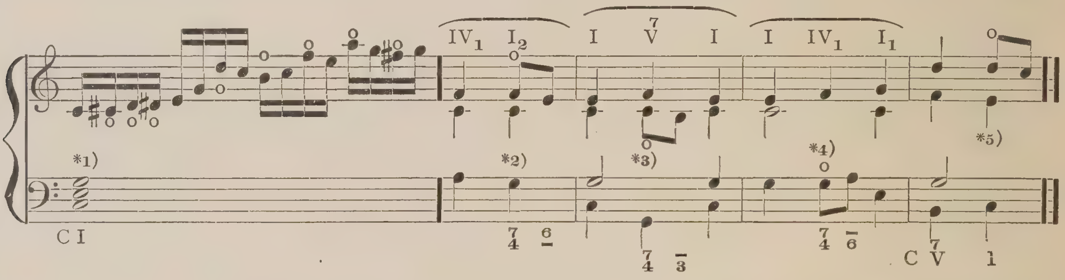
Ex. 276.



*1) *B*♭ might be a seventh, and *d*♭ or *d*♮ a ninth of this chord, as *dominant chord* of *F* maj. or minor. But they are inharmonic in the chord *as I of C major.*

362. It is evident that the quality "inharmonic" is merely relative, and depends upon the ruling chord. Therefore, before it can be decided whether a tone is inharmonic or not, the identity of the chord in connection with which it appears, must be established. This may be done by the accompanying parts, or it may be obviously deduced from the *connections with the preceding and* (*chiefly*) *with the following chords.* Thus (the inharmonic notes are marked o):

Ex. 277.



*1) The duration of the tones in the bass clef, compared with the brevity of the upper tones, sufficiently defines both the harmonic and inharmonic notes. — *2) The peculiar bass figuring, $^{7}_{4}$, shows that the tones are combined in a non-harmonic way. Whether the $^{7}_{4}$ is a distortion of $^{6}_{4}$, or $^{7}_{3}$ or $^{6}_{3}$, depends chiefly upon the chord which *follows*. At *2) it is evidently the I_2 of *C;* at *3), the $\overset{7}{V}$; and at *4), the IV_1. — *5) The *d* in soprano cannot be a "ninth," because there is no seventh with it.

363. Inharmonic tones are of the utmost importance and value in music, as they constitute practically the entire *embellishing equipment* of the composer. They animate the simple chords, add melodic significance to the several parts, and are an almost unlimited resource of ingenuity and effectiveness. The manner and extent of their use is so decidedly individual, that the distinctive style of every great writer is characterized chiefly by his treatment of the inharmonic embellishments.

364. As stated above, every inharmonic tone is, strictly speaking, a neighboring-note. But it is customary to speak of four kinds of inharmonic tones: the **organ-point,** the **suspension,** the **anticipation,** and the **passing-note** or **neighboring-note,** which are distinguished according to the manner in which they enter and progress. They may also be divided into three groups, as follows: the organ-point is a *heavy* (long) embellishment, the neighboring-note a *light* (short) embellishment, and the suspension and anticipation result from partial *mixture* of a chord with those which precede or follow it.

SECTION 1. THE ORGAN-POINT.

365. *a.* The organ-point (also called "pedal-point") consists in *sustaining a certain scale-tone* during a section of the phrase or period (or throughout), almost or quite *irrespective of the harmonic progressions in the other parts.*

As the latter progress from one chord to another, and perhaps even modulate into other keys, the sustained note must necessarily disagree from time to time with their harmonies, and become *inharmonic.*

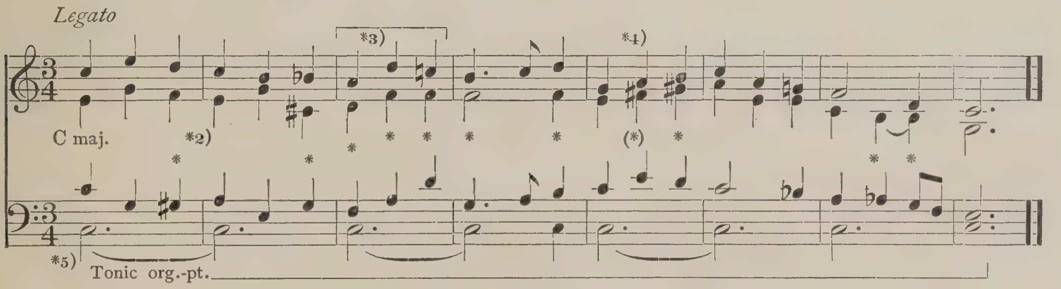
b. The organ-point differs materially from the other inharmonic elements, and constitutes therefore a distinct phase of "inharmonics" by itself. As a general principle, inharmonic notes demand resolution more urgently than sevenths, ninths and other active tones, which, though dissonances, are at least *harmonic.* The organ-point, on the contrary, is a *heavy, impassive* tone, which effects its "resolution" by simply *remaining* until the other intervals return to mutual consonance.

366. On account of its weight, the organ-point must be a tone of such quality as will endure prolongation without endangering the harmony, namely: as a rule, *either the* **tonic** *or the* **dominant** *note of the principal key.*

The prolongation of the tonic or dominant notes as organ-points is justifiable on the grounds that these are naturally the dominating tones of the key, and whether they are merely retained in the mind, as ideal prolongation of those factors from which all the relations of the key must be determined, or are *actually held* and kept sounding in the ear, is not a matter of great difference.

The following is an example of the **tonic organ-point** in bass:

Ex. 278. *1)

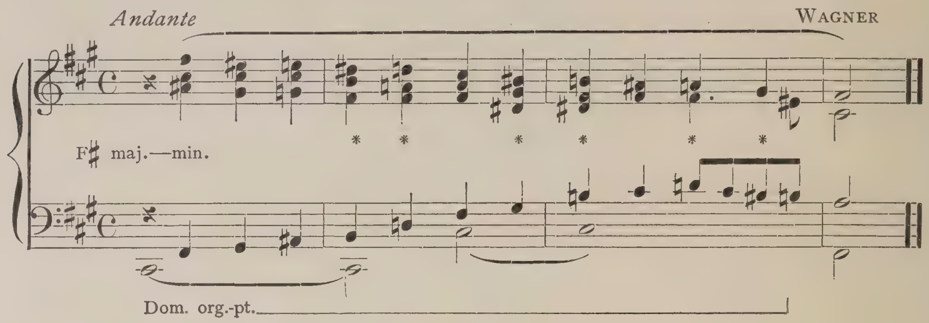


---

*1) This, and the following examples, are *continuous,* — not *single* measures. — *2) These asterisks indicate the points at which the sustained tonic in bass is *inharmonic.* — *3) Throughout this meas. the *c* in bass might be regarded as a harmonic seventh of the chord; but it does not impart that impression. — *4) Here, also, the *c* in bass *appears* to be harmonic (fifth of the chord); but its identity as organ-point is already fully established. — *5) The student will obtain a correct impression of the organ-point, at the piano, only by striking, — not holding, — the tone at each beat.

The following is an example of the **dominant organ-point** in bass:

Ex. 279.



HINTS AND DIRECTIONS.

367. The organ-point possibly owes its origin to the "organ," upon which it is easily produced by simply holding the corresponding bass-pedal, while the hands continue the harmonic progression on the manuals. Hence the terms "organ-point" or "pedal-point." It is, however, obviously not limited to this, or any other, instrument. The following details must be borne in mind:

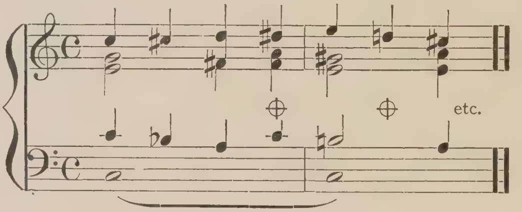
a. Being a tone that enriches rather than embellishes the harmony, that aids in holding the chords firmly together, it is essentially fundamental in character and therefore appears most appropriate *in the bass,* — *i.e., below* the other parts. It may, however, appear in an inner part, especially as duplication of the bass organ-point, and is even possible in soprano, though very rare. In the latter case it is sometimes called an *inverted* organ-point.

b. The organ-point should, as a very general rule, *begin and end as* **harmonic** tone (*i.e.*, as legitimate chord-interval).

c. As stated in par. 365*a*, the organ-point is sustained irrespective of the chords in the other parts, but there is naturally a limit to this rule. If the sustained tone becomes harshly discordant for several successive beats, or if the modulations extend into remote keys, the result is disagreeable. This limit will be most easily determined by the *ear*. There is least objection when the *other parts move smoothly;* when the harmonies are simple; and when care is taken to make the organ-point *harmonic* from time to time. Still, it is a prerogative of the organ-point to conflict sometimes almost fiercely with the other parts, and its persistency seems to be a sufficient justification.

The following example, however, is palpably doubtful. (Comp. par. 426.)

Ex. 280.

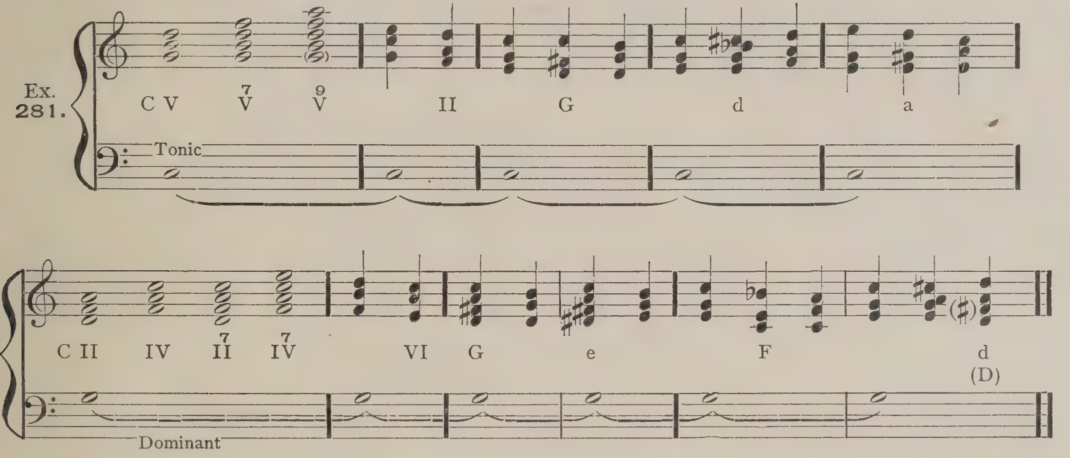


d. The length of organ-points is optional; sometimes they extend through a whole piece, or through large sections; and sometimes, on the contrary, they are quite short. The difference between ordinary (long) organ-points and short ones is very great, and will be considered later. *Long* organ-points should, according to the law of rhythm, commence on an *accented* beat.

e. The organ-point may be *held*, or it may be reiterated, — perhaps in alternation with the upper or lower octave, or with the interposition of another harmonic interval. This will depend largely upon the instrument for which the composition is written, and upon the desired effect. See Ex. 282, and 285, No. 3.

f. It will be well to remember that the **tonic** note becomes an organ-point *in connection with dominant* (1st Class) chords: and the **dominant** note *in connection with subdominant* (or 2nd Class) chords. And both become organ-points during *next-related modulations.* Thus:

Ex. 281.

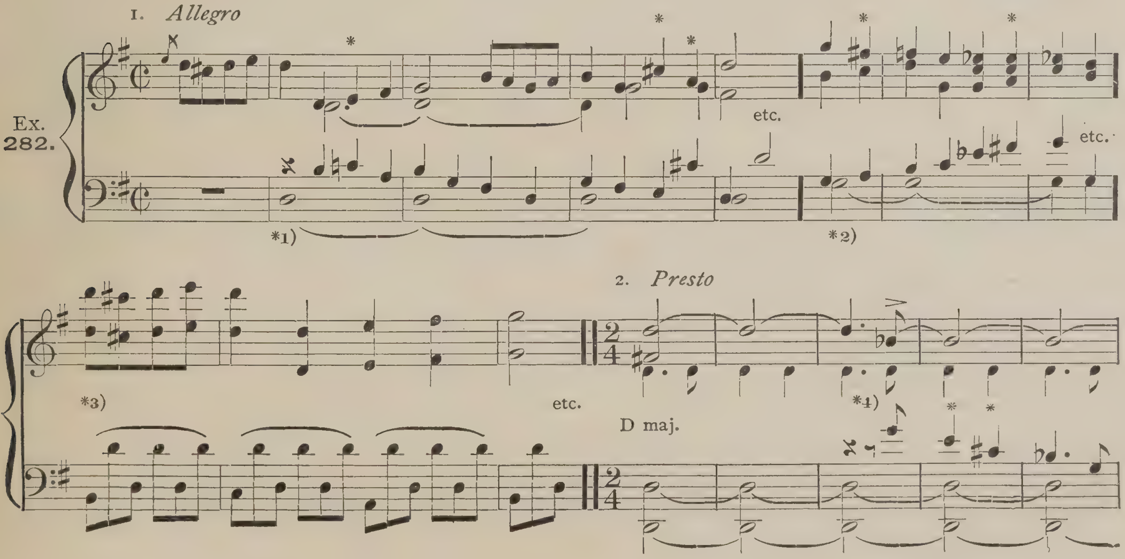

C V
7 V
9 V
II
G
d
a
Tonic
C II
IV
7 II
7 IV
VI
G
e
F
d
(D)
Dominant

g. The accompanying parts should move *as smoothly as possible.*

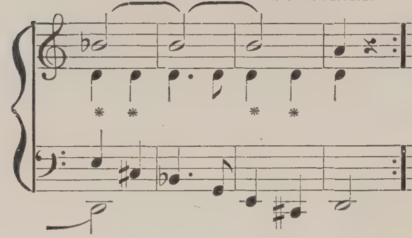
The following example illustrates different varieties of the tonic and dominant organ-points.

BEETHOVEN

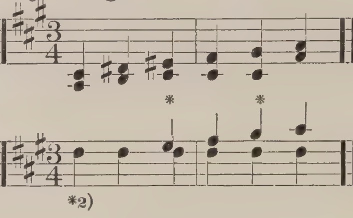
Ex. 282.


1. Allegro
*
*
*
*
*
etc.
etc.
*1)
*2)
*3)
etc.
2. Presto
D maj.
*4)
*
*

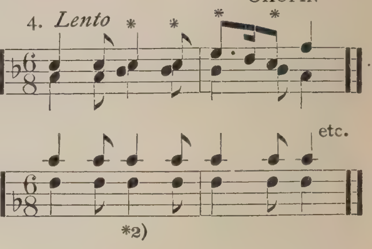
SCHUMANN



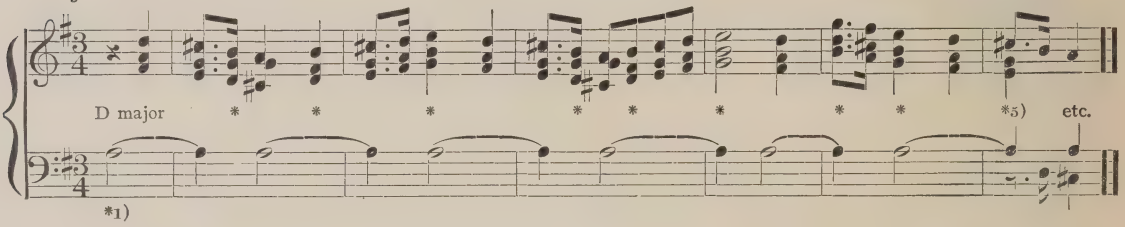
3. *Allegro* SCHUMANN



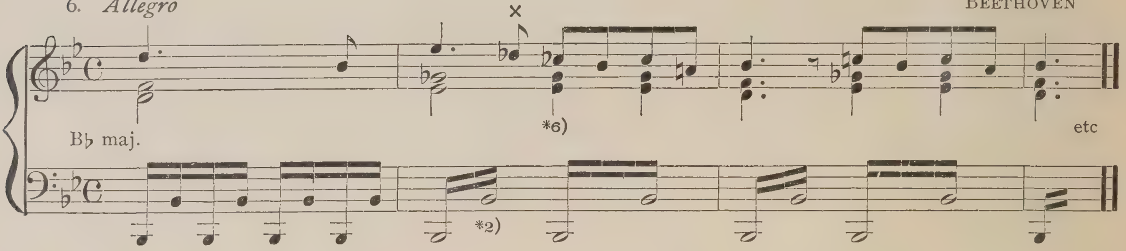
4. *Lento* CHOPIN



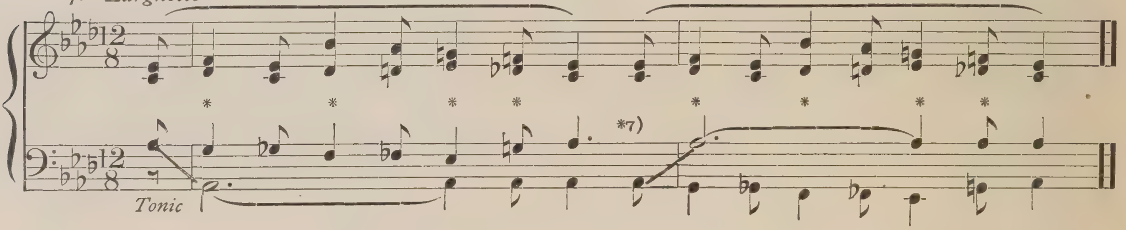
5. *Moderato* MENDELSSOHN


D major
*
*
*
*
*
*
*
*
*5)
etc.
*1)

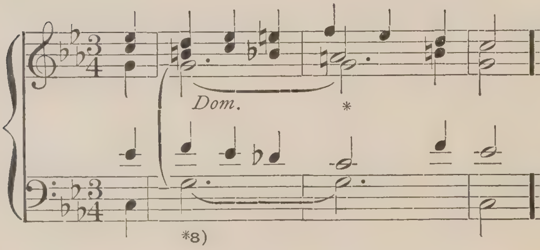
6. *Allegro* BEETHOVEN



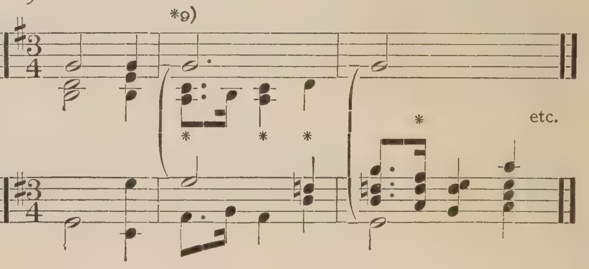
7. *Larghetto* SCHUMANN



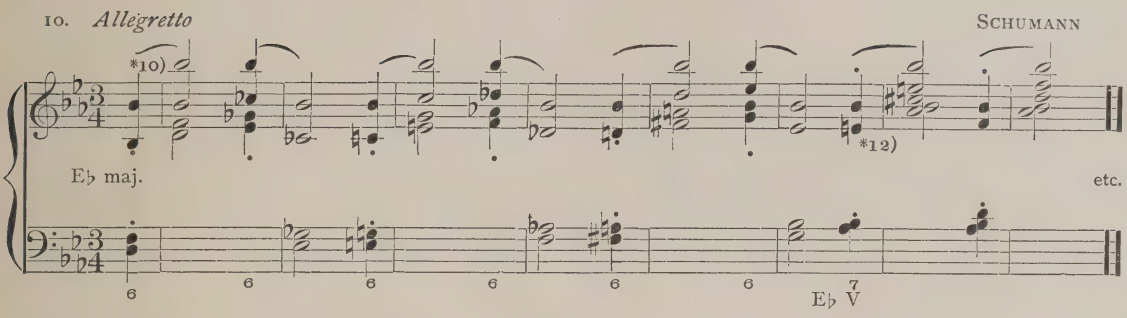
8. FAISST



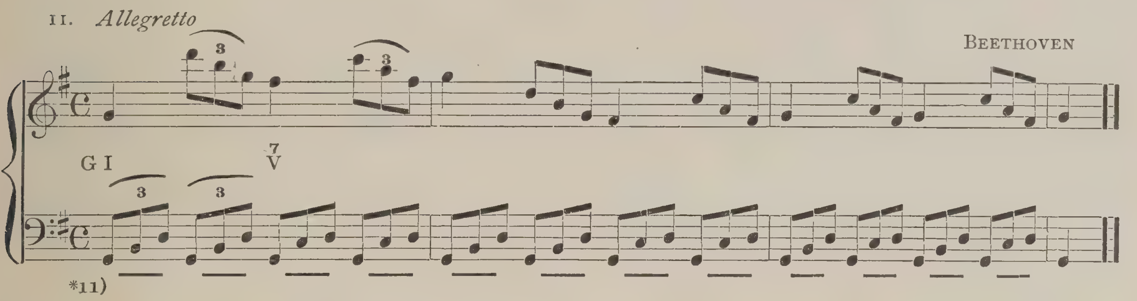
9. MENDELSSOHN



10.



11.



*1) Dominant organ-point in bass. — *2) Tonic organ-point in bass. — *3) This is the manner in which the organ-point in No. 1 is reproduced later in the composition. — *4) Tonic org.-pt. in bass, and *doubled in alto*. — *5) The org.-pt. is transferred from bass to tenor. — *6) The lowered 6th and 2nd steps in *B*♭; the *d*♭ is a passing-note, and suggests *e*♭ minor. See par. 400c. — *7) The tonic organ-point which occurs at first in bass, is transferred to the tenor by simply inverting the lower parts during the repetition of the phrase. — *8) Doubled org.-pt. in bass and alto. — *9) Doubled org.-pt. in soprano and tenor, and then in soprano and bass. — *10) An unusual example of the org.-pt. in soprano. The harmony is a chromatic succession of 6ths (par. 326*a*). — *11) An organ-point, especially when in bass, is often thus *interrupted* by the intermediate intervals of the broken chord. See **Mendelssohn,** Songs without Words, No. 12, first 10 measures (*f*♯ in bass); No. 31, beginning of 2nd measure, and last 5 measures; No. 37, last 12 measures (*f* in bass). — *12) *E* and *c*♯ are neighboring-notes. — See also the following general examples:

Beethoven, Sonata op. 28, first movement, measures 1–24, *d* in bass;
" " " " first movement, the last 24 measures, *d* in bass;
" " " " second movement, measures 9–15, *a* in bass;
" " " " last movement, measures 1–16, *d* in bass;

the same movement, measures 25–34 *from the end*, *a* in bass; and also the last 18 measures, *d* in bass. — **Beethoven,** Sonata op. 49, No. 1, the last 12 measures, *g* in bass. — **Mendelssohn,** Sonata op. 6, first movement, measures 18–26; last mov't, measures 44–25 *from the end*. — **Mendelssohn,** Overture "Meeresstille," measures 20–36, *d* in soprano.

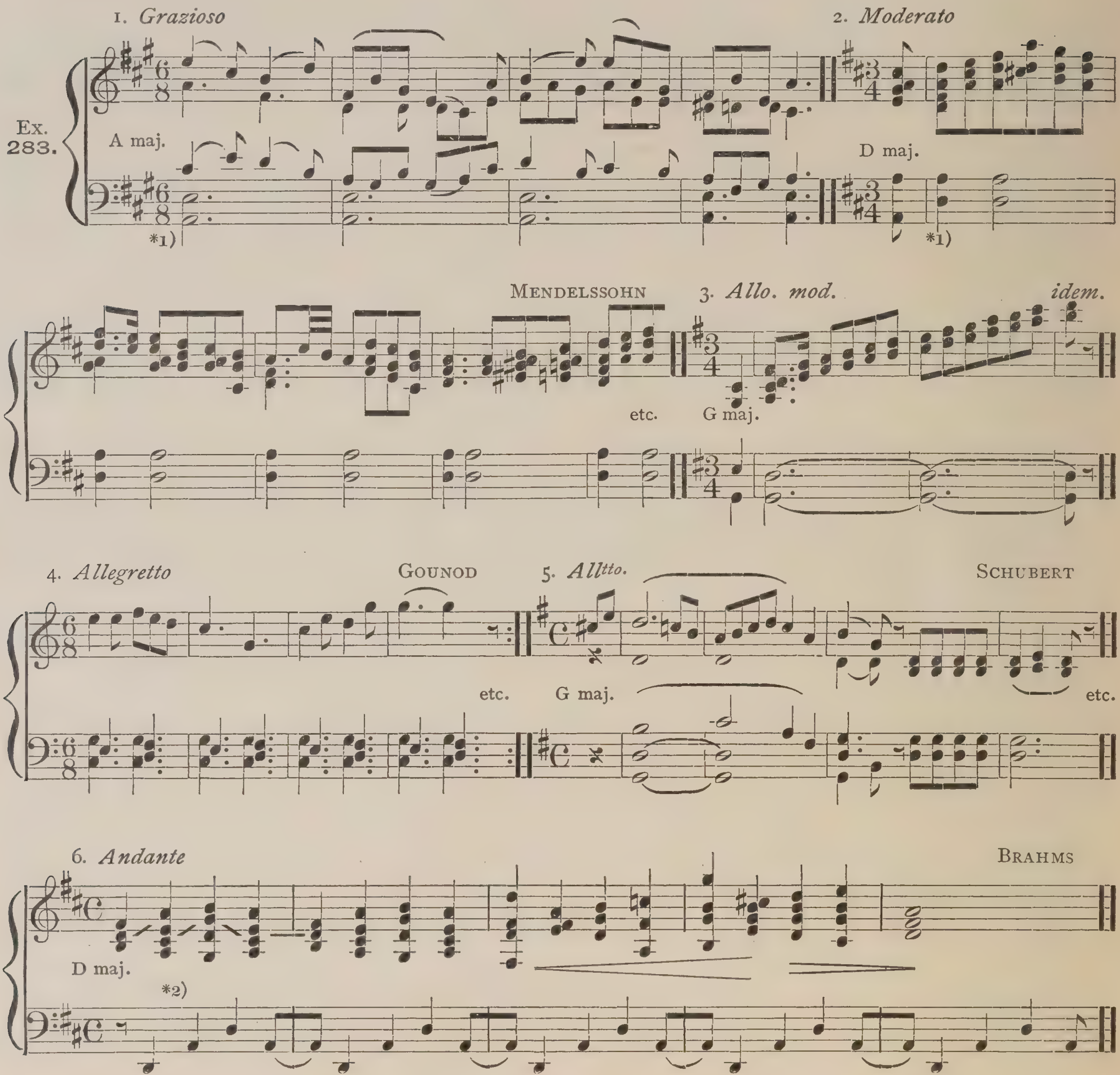
THE PASTORAL ORGAN-POINT.

368. Sometimes the tonic and dominant notes are sustained *together*, *as double organ-point*, in the interval of a 5th (tonic *below* the dominant), and usually in the lowest parts.

This is called the "pastoral" org.-pt., probably because the upper parts are necessarily limited to such simple chords and modulations as can be associated with *both* sustained tones, without producing too harsh a dissonance.

For illustration:

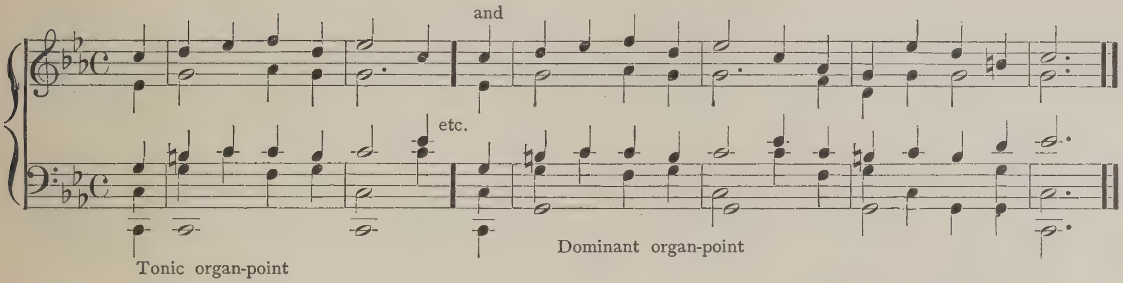
Ex. 283.


1. Grazioso
A maj.
*1)
2. Moderato
D maj.
*1)
MENDELSSOHN
3. Allo. mod.
idem.
etc.
G maj.
4. Allegretto
GOUNOD
5. Alltto.
etc.
G maj.
SCHUBERT
etc.
6. Andante
D maj.
*2)
BRAHMS

*1) Tonic and dominant sustained together in the lower parts, as pastoral organ-point. — *2) Here the pastoral organ-point is presented by *one part alone*, in alternating tones, and includes the upper octave of the tonic, also.

EXERCISE FIFTY-SEVEN.

A. To a number of the phrases (both given basses and original exercises) written in Part II, add, as lowermost (fifth) part, a tonic organ-point. Also a dominant organ-point, extending from near the beginning up to the perfect cadence. For example, Exercise 10, bass *e:*


and
etc.
Tonic organ-point
Dominant organ-point

B. Write a large number of **Original phrases,** or periods, with tonic, dominant, and pastoral organ-points.

IRREGULAR ORGAN-POINTS.

369. While the tonic and dominant notes are unquestionably the best adapted to prolongation as organ-points, other steps of the scale can also occasionally be used in the same way. But such organ-points are irregular, rare, and difficult to handle.

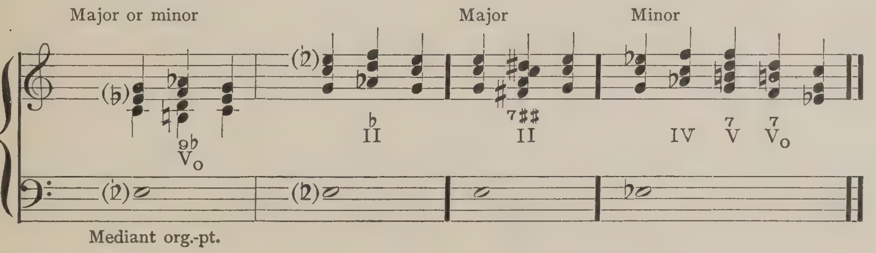
370. The commonest and best of these is, probably,

THE MEDIANT ORGAN-POINT

obtained by sustaining the *3rd Scale-step.* This step is closely allied to the tonic and dominant (not only in its *harmonic* equality as part of the tonic triad, but more particularly in its similar quality as *inactive* tone), and its prolongation as organ-point seems therefore justifiable.

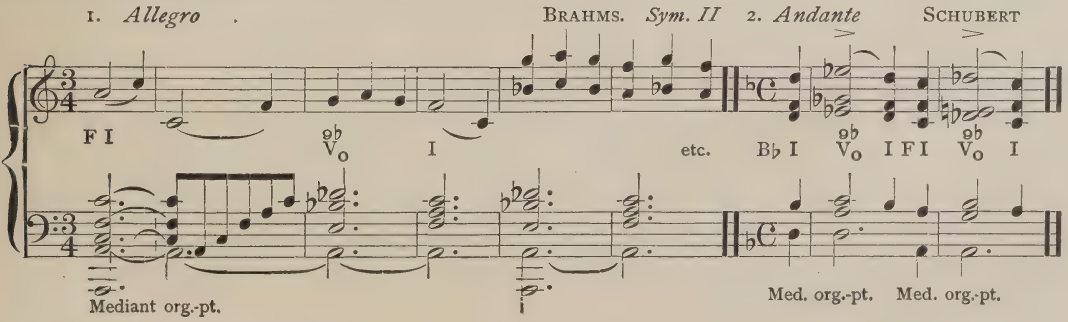
The mediant organ-point is more common in minor than in major; it is invariably in *bass;* is usually brief; and must be associated with very simple and smooth harmonic progressions. The following chords are the best:

Ex. 284.

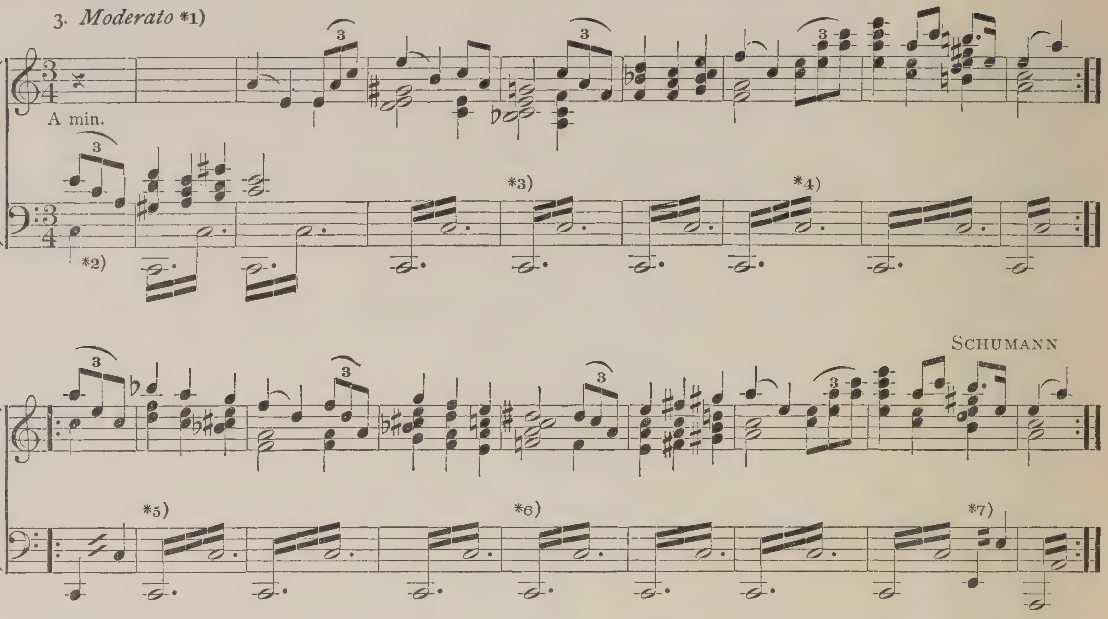

Major or minor
Major
Minor
9♭ V₀
♭ II
7♯♯ II
IV
7 V
7 V₀
Mediant org.-pt.

Illustrations of the mediant organ-point:

Ex. 285.


1. Allegro
BRAHMS. Sym. II
2. Andante
SCHUBERT
F I
9♭ V₀
I
etc.
B♭ I
9♭ V₀
I F I
9♭ V₀
I
Mediant org.-pt.
Med. org.-pt.
Med. org.-pt.

3.



*1) This example is taken from **Schumann's** 3rd Symphony, 2nd movement, commencing at the 4th double-bar. It is a most remarkable and beautiful illustration of the mediant org.-pt. If the student wishes to obtain a more complete impression than is conveyed by the above condensed version, he may do so from a 4-hand arrangement. — *2) The tone *c* in bass is at first the *mediant* of *a* minor. At *3) it becomes the *dominant* in *F* maj.; at *4) it is again a mediant; at *5) it is a short dominant in *F*, and immediately afterwards is associated with *d* minor; at *6) it is again the mediant; and at *7) it yields and proceeds into the perf. cadence.

---

371. Other **irregular organ-points** will be found in the following works:

Subdominant org.-pt., see **Schumann,** Op. 23 ("Nachtstücke"), No. 1, measure 24–21 *from the end*, *g* in bass. This, like the mediant org.-pt. of **Schumann** (cited above), does not remain a subdominant (of *d* minor) constantly, but changes to a dominant of *C* maj., then back to a subdom., and ends as tonic of *G* major. — Also **Mendelssohn,** Songs without Words, No. 27, measures 25 and 26, *a* in soprano, in *e* minor. — In the same piece, measures 27 and 28, there is a double-org.-pt., *e* in soprano as **tonic,** and *c* in bass as **submediant** of *e* minor. These are both justified by the simplicity and smoothness of the inner parts (successive diatonic chords of the 6th). — **Mediant** org.-pt., see **Mendelssohn,** Songs w. W., No. 25, measures 18–20 (commencing to count, as usual, at the first *full* measure), *c* in bass, in *a* minor; intercepted as in Ex. 282, Note *11).

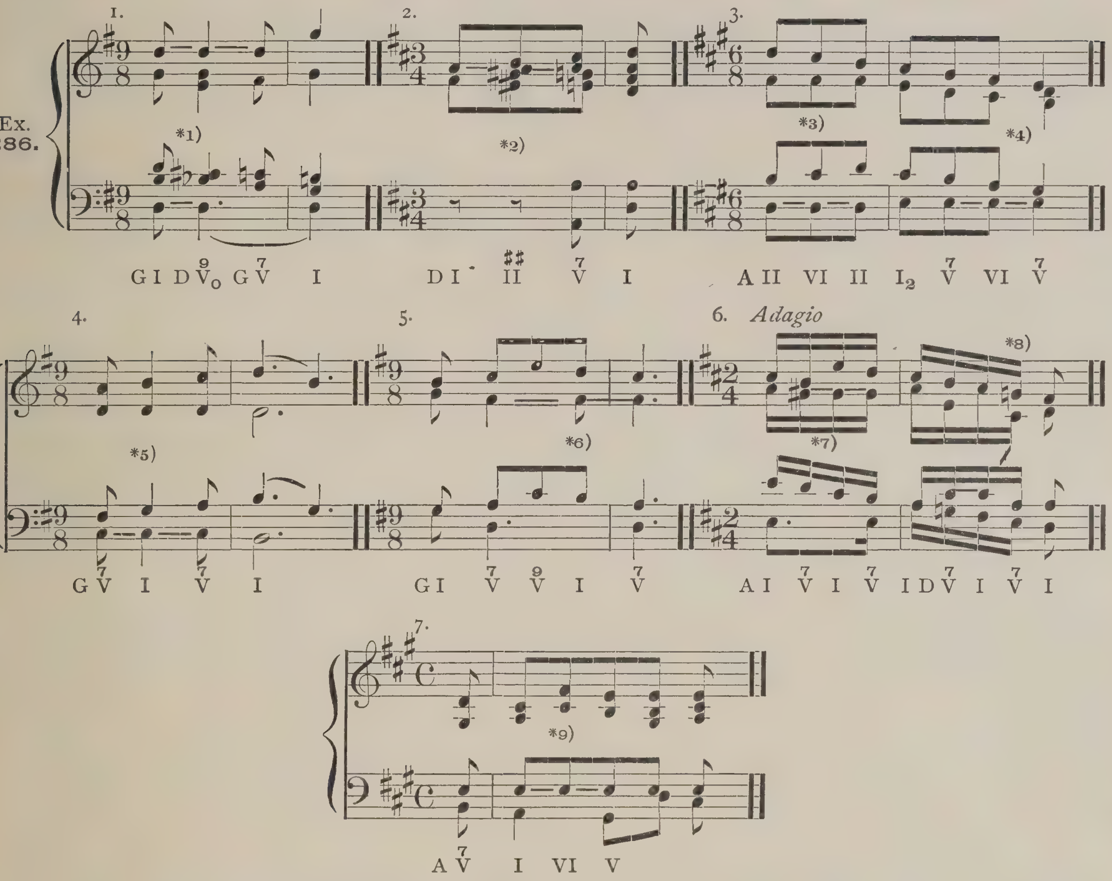
The Short Organ-point.

372. *a.* Short organ-points generally extend over *three chords* only (beginning and ending harmonic, and becoming inharmonic at the middle chord), and therefore hardly convey the impression of sustained tones. They are used chiefly for the purpose of *avoiding unquiet or inconvenient progressions in the single parts.* When any part quietly holds its tone, instead of joining in the harmonic succession of the other parts, the effect is rarely disagreeable, when brief.

b. A short organ-point may appear in *any part;* and it may be *any step* of the scale, — but will always be least hazardous if it is either the tonic or the dominant of the momentary key. It may also occur at any part of the measure.

The following illustrations are all taken from Mendelssohn's "Songs without Words."

Ex. 286.



*1) Short dominant org.-pt. (*d*) in soprano and bass. The key and chords are marked below each example. — *2) Dom. org.-pt. (*a*) in alto. — *3) Subdom. org.-pt. (*d*) in bass. — *4) Dom. org.-pt. (*e*) in bass. — *5) Subdom. org.-pt. (*c*) in bass. — *6) Leading-tone org.-pt. (*f*♯) in alto. The *f*♯ is *held* instead of *resolving to g*, the note which is necessary for the I. — *7) Leading-tone org.-pt.(*g*♯) in alto. — *8) Leading-tone org.-pt. (*c*♯) in tenor, transferred to alto. — *9) Dom. org.-pt. (*e*) in tenor.

It will be observed that the chord-progressions, during which these short organ-points occur, are of the most regular and simple kind; chiefly I–V–I. And it may be added that the passive resolutions of harmonic discords (seventh and ninth) are analogous to the short organ-point.

FUNDAMENTAL PRINCIPLES.

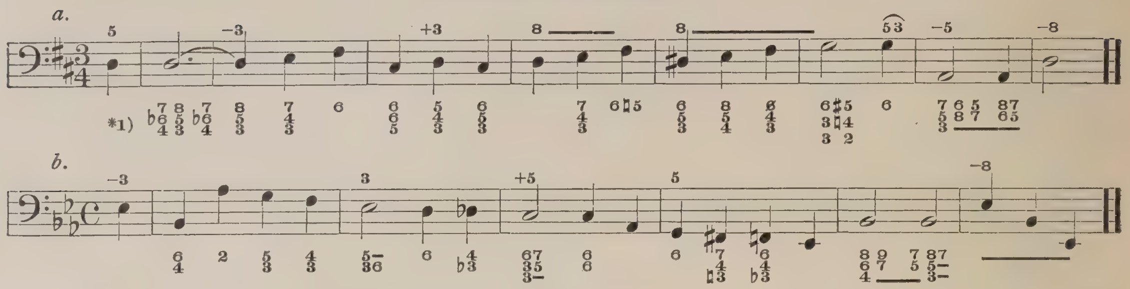
All inharmonic tones lie either directly below or above the harmonic ones.

An organ-point is, usually, a sustained tonic or dominant note; and is most common in the lowermost part.

An organ-point begins and ends as *harmonic* tone.

Short organ-points are used chiefly to obviate inconvenient voice-progressions.

EXERCISE FIFTY-EIGHT.



*1) The figures below the bass notes merely indicate, as usual, *which upper tones* are required. It is left to the pupil to find where short organ-points occur, and locate them properly.

Add a number of **Original phrases,** or periods, applying all the principles explained in this Section, and introducing any kind of organ-point.

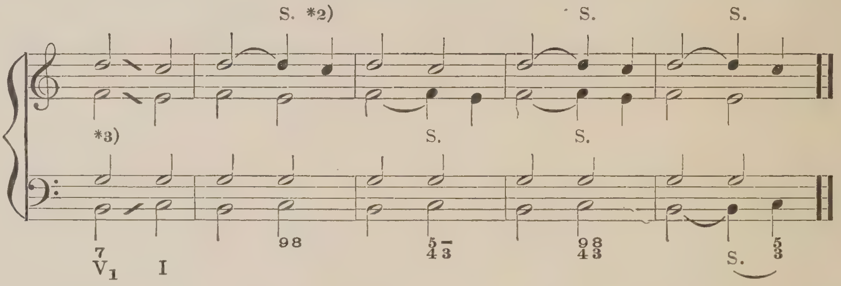
SECTION 2. THE SUSPENSION.

373. The suspension is a tone which is held over from one chord into the next in such a manner that it becomes inharmonic with the second chord.

It is, strictly speaking, nothing more or less than a *neighboring-note* (see par. 364), but one that is "prepared" by some interval of the preceding chord. For the present it will be spoken of as suspension, but ultimately the term neighboring-note will invariably constitute a correct analysis.

374. Being a neighboring-note, its resolution is performed by a *diatonic movement,* — *usually downward,* — but sometimes upward, into the legitimate interval of the second chord which it displaces. Thus:

Ex. 287. *1)



*1) Again separate measures. — *2) S. signifies "suspension." — *3) The first measure is the given chord-progression. In the next measure, the soprano note *d* of the first chord, — which may become a suspension *because it moves step-wise,* thus assuring its quality as neighboring-note, — is held over into the second chord, where it becomes the *upper neighbor* of the harmonic tone *c*. During the second chord it makes its resolution by progressing to this *c*, which its prolongation had displaced, or "suspended." — In the third measure there is a suspension in alto, — *f*, the upper neighbor of *e*. — In the 4th measure there is a double suspension in soprano and alto; in the 5th, in soprano and bass, — the latter a *lower* neighbor, with upward resolution.

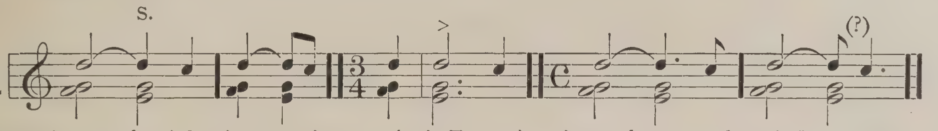
From the above it is obvious that the suspension does not alter the original *melodic* progression in the part or parts involved, but merely changes the *rhythmic* form. Instead of moving in uniform rhythm with the other parts, it limps after them (comp. Ex. 287, measures 1 and 2), and the perpendicular lines are thus bent into an *oblique form.*

HINTS AND DIRECTIONS.

375. *a.* Suspensions may occur in any part, but are perhaps most common in the *soprano.* They are also excellent in either inner part, but somewhat less so in bass.

b. The *length* of a suspension is optional; generally it is just *half the value* of the chord into which it extends. It may be *more*, but rarely *less* than this. Thus:

Ex. 288.

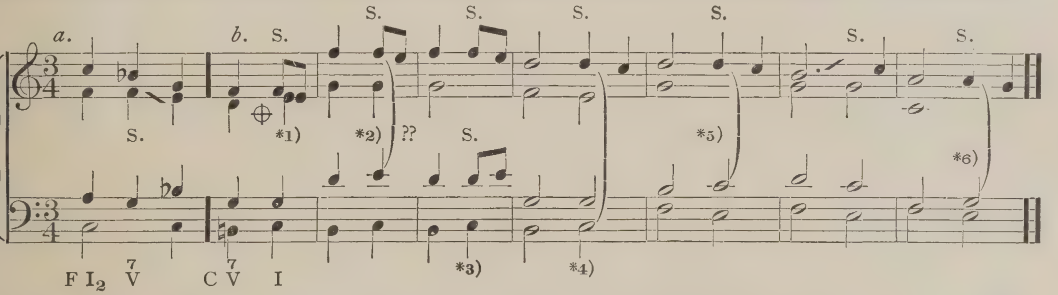


c. The suspension may be *tied* to its preparing-tone (as in Ex. 287), or it may be re-struck, as in Ex. 288, No. 3. The struck suspension is more emphatic and effective. In organ music it is usually tied.

d. It is apparent that the suspension must always appear *upon the first* (*accented*) *fraction of its beat,* — *usually upon the accented beat.* It may stand on the 2nd beat in triple measure, — Ex. 289*a*. The resolution is *always less accented.*

e. The suspension is subject to the general rule of neighboring-notes, that it should not appear *simultaneously with its resolving-tone* (in different parts, of course). But this depends wholly upon the quality of the principal tone involved; if a strong scale-step, the duplication is good; if the leading-tone, 3rd or 6th step, it had best be avoided. It is always wrong in the *same register.* For example:

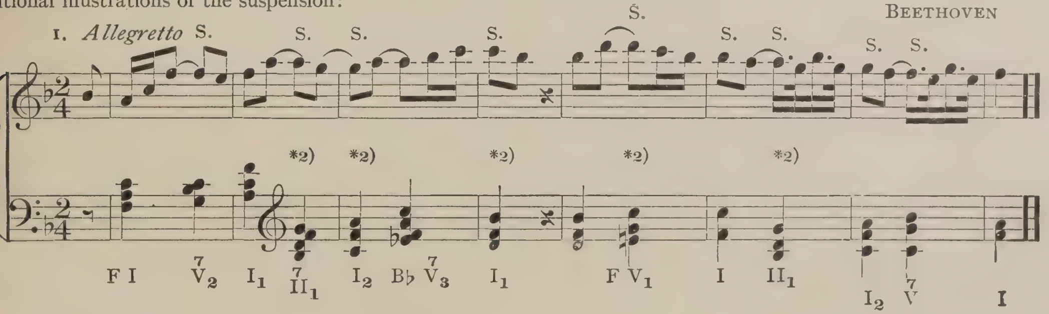
Ex. 289.



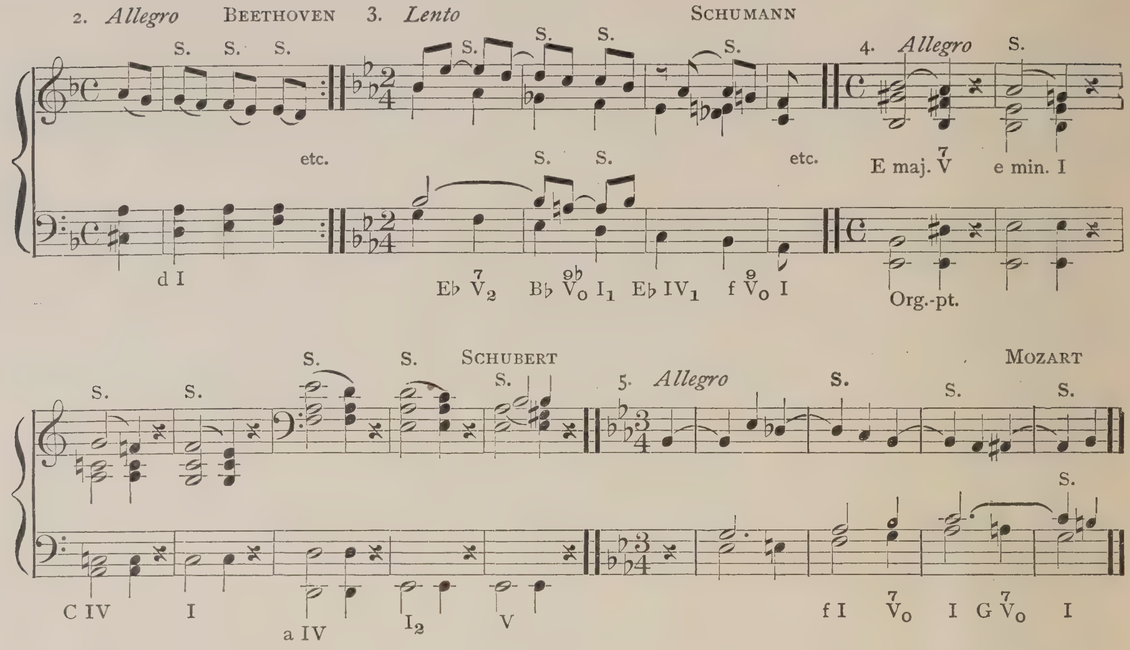
*1) It is palpably incorrect to place the suspension *f* and its resolving-tone *e close together* in this way. — *2) Not as bad as the preceding, because the conflicting tones are farther apart. But it is scarcely admissible, as the tone involved is the weak 3rd step, which is not duplicable anyway (comp. par. 59). — *3) The above error is the inconsistency of deferring a tone in one part, and neglecting to do so in another. Therefore the simplest remedy for the blunder is, either not to double the tone, or *to defer it in both parts,* as here, — from above and below, as double suspension. — *4) Good, because the *tonic* is duplicable under all conditions. — *5) The same. — *6) Good, as the *dominant* is suspended.

Additional illustrations of the suspension:

Ex. 290. *1)



BEETHOVEN

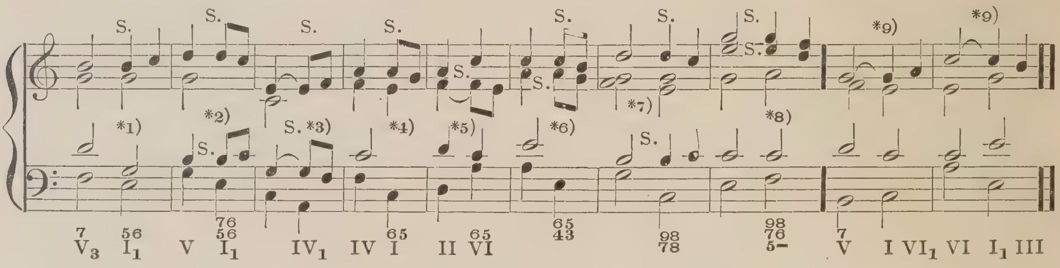

2. Allegro
Beethoven
3. Lento
Schumann
4. Allegro
S.
etc.
d I
E♭ V7 2
B♭ V9♭ 0 I1
E♭ IV1
f V9 0 I
E maj. V7
e min. I
Org.-pt.
Schubert
5. Allegro
Mozart
C IV
I
a IV
I2
V
f I
V7 0
I G V7 0
I

*1) Again *continuous* examples. — *2) At each of these places the rule given in par. 375*e* is *persistently* disregarded. This is correct, because the intention is evident; comp. par. 65*c*.

Harmonic Suspensions.

376. It is not absolutely necessary that the tone which is prolonged in this manner, from one chord over into the next, should become an *inharmonic dissonance.* Sometimes the prolonged note agrees with the intervals of the following chord, so that they together assume the *appearance*, at least, of a harmonic body. When this is the case the prolonged note is called a "*harmonic*" suspension; and it will nevertheless produce the *effect* of an ordinary inharm. susp., if the apparent "chord" does not conform to the harmonic progression which is expected or required. For illustration:

Ex. 291.


S.
*1)
*2)
*3)
*4)
*5)
*6)
*7)
*8)
*9)
V7 3
I56 1
V
I76 56 1
IV1
IV
I65
II
VI65
65 43
98 78
98 76 5–
V7
I
VI1
VI
I1
III

---

*1) The 2nd soprano-note *b* appears to be a fifth of the triad III; but this chord, besides being unusual in any connection, is out of the question here, where the I is *required*, as resolution of the preceding V^7. This *b* must therefore, *although not inharmonic*, be regarded as a suspension; *i.e.*, as a tone which is prolonged beyond the first chord for the sole purpose of deferring or suspending the next note, *c*. — *2) This appears to be a $\overset{7}{\text{III}}$; but see Ex. 190, Note *1). — *3) Appears to be a $\overset{7}{\text{VI}}$, and is therefore more plausible than *2); but it *sounds* more like a double-susp. than like a chord. — *4) *5) Appear to be chords of the 6th. — *6) All 6–4 chords, when used in this connection, partake very largely of the nature of suspensions. — *7) Looks like a $\overset{9}{\text{I}}$, — an impossible "chord." — *8) Looks like a $\overset{9}{\text{IV}}$; also impossible. — *9) *On the contrary*, these soprano notes (*g* and *c*) are *not* suspensions, because they represent chords of undoubted identity.

SUSPENSION-CHORDS.

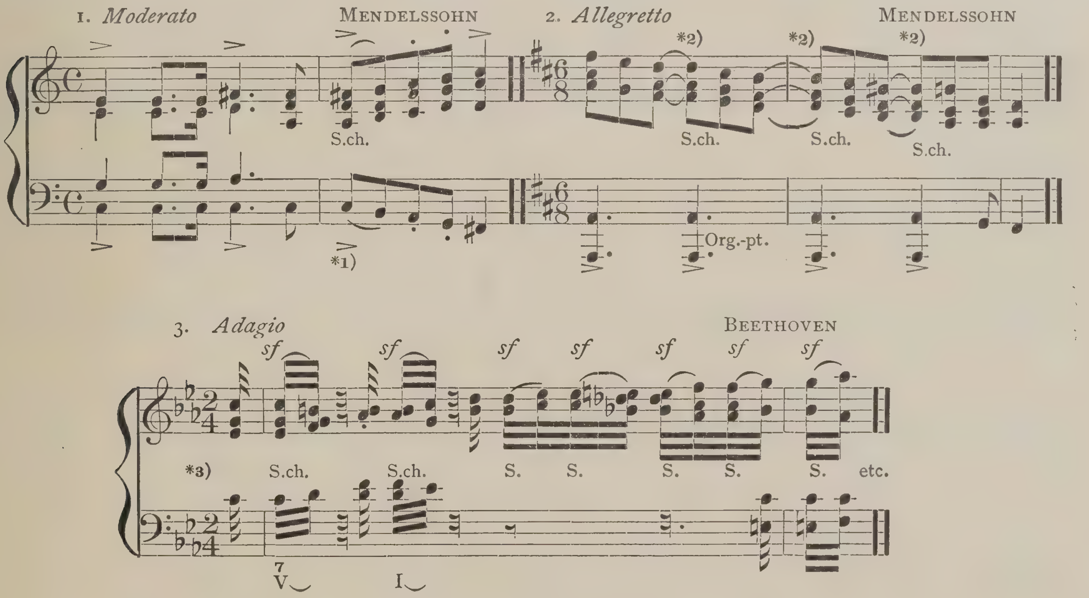
377. *a.* Analogously, a *whole chord* may be prolonged from an *unaccented* beat to the following accent, in such a manner that the expected (accented) chord is obviously deferred for a beat or so.

This causes a violation of the rhythmic principle given in par. 85 (which review). But it must be remembered that this rule refers, strictly, only to the *bass tone* (par. 166); and, like all other irregularities, it is entirely permissible when so executed that the *intention* is obvious.

b. Any misconception of the rhythm, which may result from such an irregular repetition of the bass tone and chord, should be averted by such means as serve to denote, clearly, *the location of the accents*, — for instance, by strong metric or dynamic accentuations; or by symmetrical recurrence, as in sequences and the like.

For these chord-repetitions the term "suspension-chords" seems appropriate. For example:

Ex. 292.

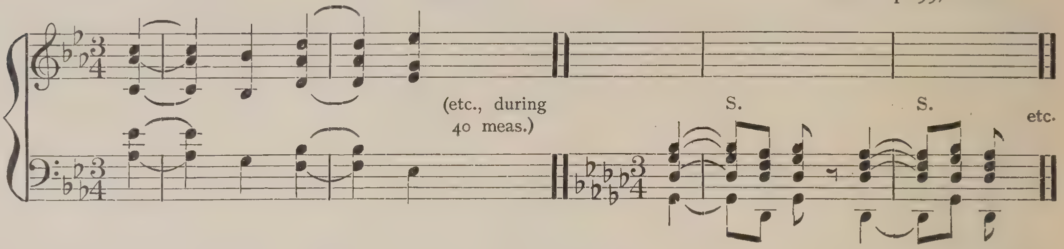


*1) A "susp.-chord," repeated from the preceding measure. The correct rhythm is so clearly defined in the preceding measure that all danger of misconception disappears. — *2) The stagnating effect of the ties is counteracted by the strong accentuations in bass. — *3) Here the location of the beats is marked by the dynamic accentuations (*sf*), and also by the slurs, which indicate which tones *together* constitute a beat. — See also Ex. 217, No. 1; and Ex. 228, No. 8.

Schumann, as a rule, takes but little pains to preserve the fundamental rhythm, as the following extracts prove:

SCHUMANN idem. op. 99, No. 12

Ex. 293.



See, to the contrary: **Schumann,** "Bunte Blätter," op. 99, No. 11, Trio; and No. 12, measures 5–7; 9–11; 16; 20, etc.

FUNDAMENTAL PRINCIPLES.

The suspension is a prepared neighboring-note, — held over from one chord into the next, and resolved diatonically.

Suspensions appear on accented beats, or accented fractions.

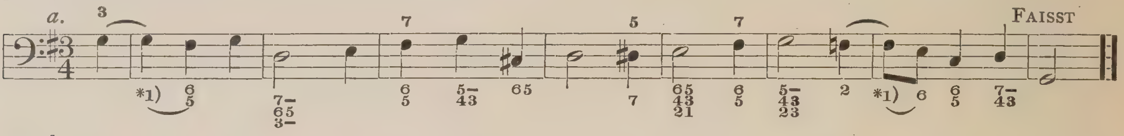
A suspension should not clash with its resolving-tone in another part, unless the latter is a strong tone which may be doubled in any case.

Rhythmic irregularities are corrected by strong accentuations, or by symmetrical arrangement.

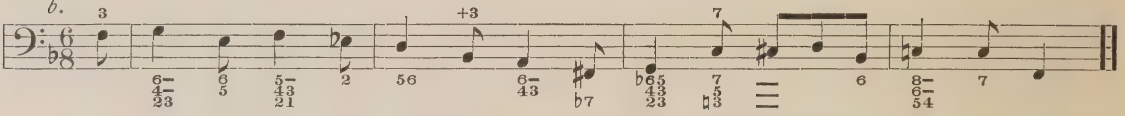
EXERCISE FIFTY-NINE.

A. Basses, to be worked out and analyzed as usual. The student is recommended to *tie* every susp. to its preparing-tone (par. 375*c*).

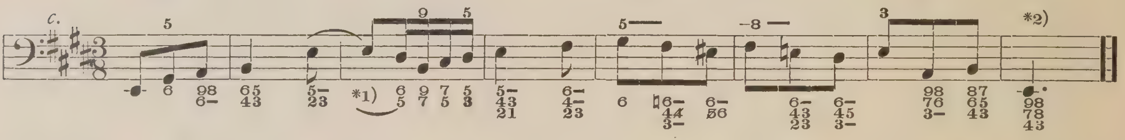
a. FAISST



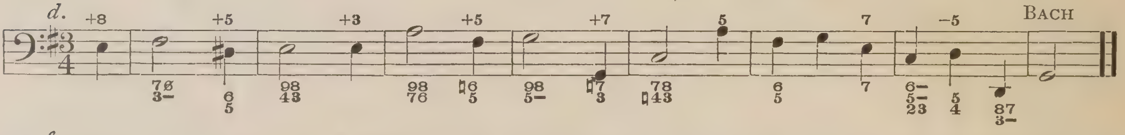
b.



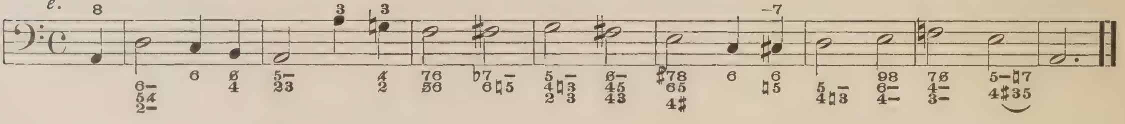
c.



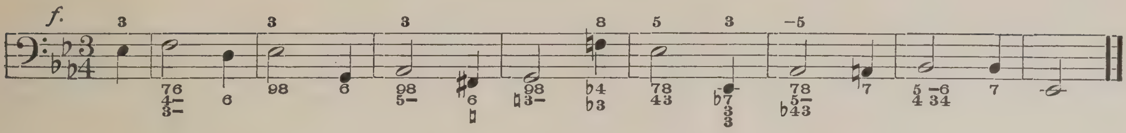
d. BACH



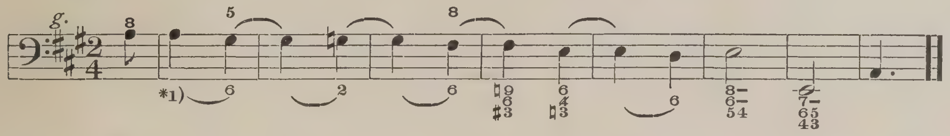
e.



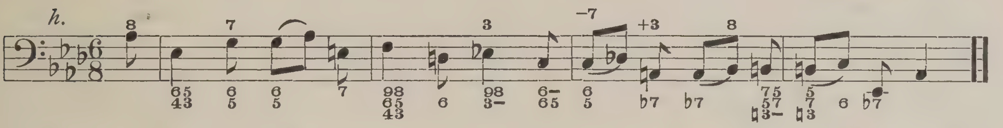
f.



g.

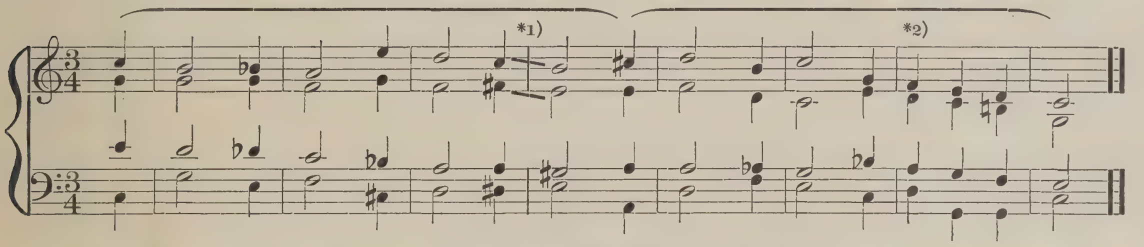


h.



*1) These slurs before the bass figures signify that *the first bass note is a susp.*, and therefore the upper parts are to take, at once, the chord indicated by the *following* figures. — *2) Rhythm ♩ ♪ or ♪ ♩; the latter is the best.

B. The following plain chord-progressions are to be modified with suspensions *on the first beat of each measure*, as follows: (1) in soprano alone; (2) in tenor alone; (3) in alto alone; (4) in any two parts together; (5) in all three upper parts; (6), (7) and (8) in *alternating* (*single*) parts, occasionally including the bass. First review Ex. 287, Note *3). — This exercise may be first written out and then played; or it may be done *at sight* at the piano.



*1) These unequal 5ths are divested of their disagreeable effect when a susp. is used in *any* of the parts. — *2) In this measure a susp. may be made at *each* beat, as ♪ note.

C. Play the following chord-progressions, at sight, *with a variety of suspensions*, using every major and minor key: $\overset{3}{\mathrm{I}} - \overset{7}{\mathrm{V}} \,\|\, \overset{8}{\mathrm{I}} - \overset{7}{\mathrm{V}}_2 \,\|\, \overset{7}{\mathrm{V}}_1 - \mathrm{I} \,\|\, \overset{7}{\mathrm{V}}_3 - \mathrm{I}_1 \,\|\, \mathrm{I} - \mathrm{IV} \,\|\, \mathrm{IV} - \mathrm{I} \,\|\, \mathrm{I} - \overset{9\flat}{\mathrm{V}}_0 \,\|\, \overset{7}{\mathrm{V}} - \mathrm{VI} \,\|$.

D. A large number of **Original phrases.**

IRREGULAR RESOLUTIONS OF THE SUSPENSION.

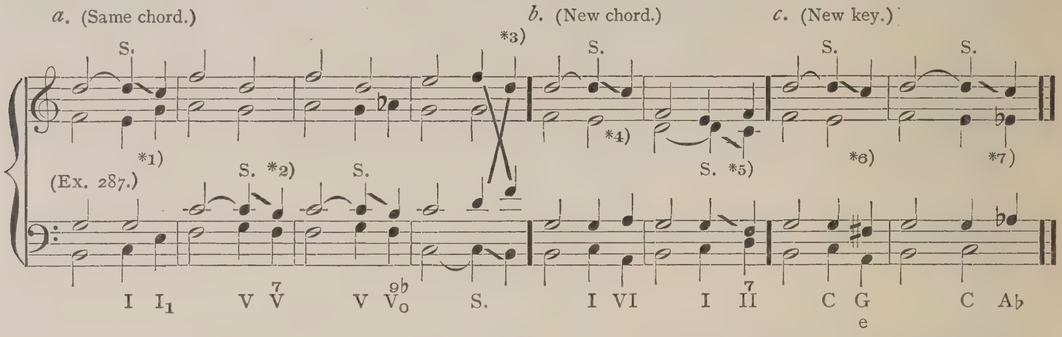
378. In order to be strict, the suspension should resolve itself *at once*, before the harmony can change, — as above. But this strict treatment is by no means obligatory. Very ingenious effects may be obtained *by changing the chord at the moment that the suspension resolves*. This simply involves a progression in one or more of the other parts, simultaneously with the progression of the suspension into its resolving-tone.

379. The rules for this "delayed" (or "compound") resolution are as follows:

a. The suspension can not evade its resolution, but *must progress diatonically* into its resolving-tone. Hence,

b. The other parts must progress into some chord which contains this resolving-tone. This may be *any* chord, of the *same key*, or of *another key*, — but it is most likely to be merely a new form (or inversion) of the proper chord itself. Thus:

Ex. 294.



*1) The bass and alto make a progression at the same time that the suspension in soprano makes its resolution, so that the chord *changes its inversion.* — *2) The bass moves, and changes the *concord* V into the *discord* $\overset{7}{V}$, during the res. of the S. — In the following meas. it is changed into a dim. 7th. — *3) Here, the *arrangement* of the chord is simply altered, by exchanging tenor and soprano. — *4) In this meas. the progressions in bass and tenor result in a change of the original chord (I) into its relative (the VI); but the res. of the S. in soprano is not interfered with. — *5) The resolving-tone of the S. in alto becomes a *seventh.* This is unique, but perfectly justifiable. The parallel fifths in the inner parts are not wrong, because the first one embraces a *suspension*, and is therefore *not harmonic.* The rule applies only to fifths which are *perfect* and *harmonic.* — *6) The progressions in tenor and bass change the key; this is allowed if effected smoothly and without interfering with the res. of the suspension. This last beat might also be the I of *F*, the $\overset{7}{V}$ of *F*, the $\overset{7}{V}$ of *B♭*, the dim.-7th of *b♭* or of *e* or of *g*, the $\overset{7}{V}$ of *G*, the $\overset{9}{V}_0$ of *E♭*, or the I of *A♭*, as at Note *7). Write out each of these, — and others, if possible.

380. Two other licences may be mentioned in connection with the above "delayed" resolution, namely:

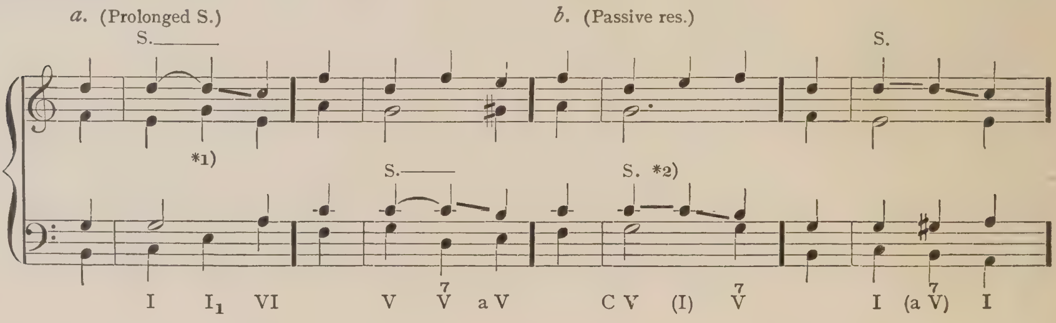
a. The *prolonged* suspension. In this case the suspension is held (precisely like the short organ-point) *beyond the beat* upon which its resolution is due, so that the other parts move *before* the susp. is resolved.

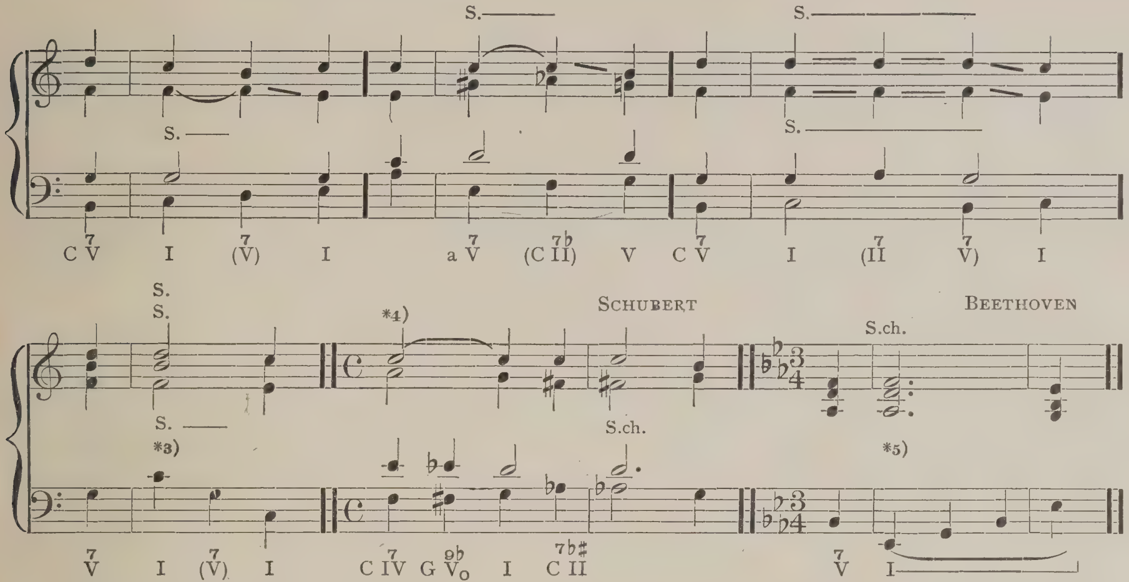
b. The *passive resolution.* Here, the suspension is extended, as at *a*, but the other parts progress in such a manner as to meet the susp. and make it *harmonic.* It is, in reality, merely a more systematic variety of the short organ-point.

N.B. — In all of these cases the suspension (as neighboring-note) *must* make its proper diatonic resolution.

For example:

Ex. 295.





*1) The susp. *d* in soprano is prolonged past its own beat into the 2nd beat, and resolved on the 3rd beat. — *2) The susp. *c* in tenor is extended into the 2nd beat, and becomes harmonic at that point (root of the I) by the progression in the soprano. — *3) This is a mode of embellishing the perf. cadence, which is quite common in older classic music. — *4) This *c* in soprano is really an organ-point; but its preparation and resolution confirm the nature of the suspension. — *5) The bass makes two progressions before the susp.-chord is resolved.

---

381. *a.* The resolution of a suspension may, furthermore, be *deferred*, exactly like that of the dominant dissonances (Ex. 156*a*), *by interposing any convenient interval of the resolving-chord* between the susp. and its resolving-tone, or its repetition. Ex. 296*a*.

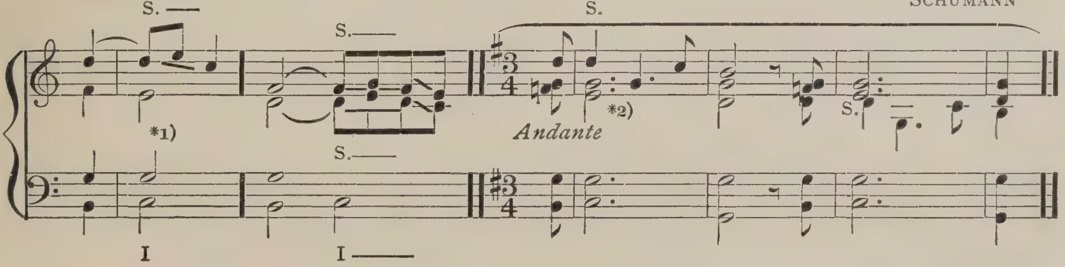
b. The suspension, being a neighboring-note, is entitled to that licence of the latter which consists in passing over into the *other neighbor*, before the principal tone follows both. See par. 409, 410. This may be done while the chord remains the same (Ex. 296*b*); or the other neighbor may have its own chord (Ex. 296*c*). In either case, *the principal* (*resolving*) *tone should follow.*

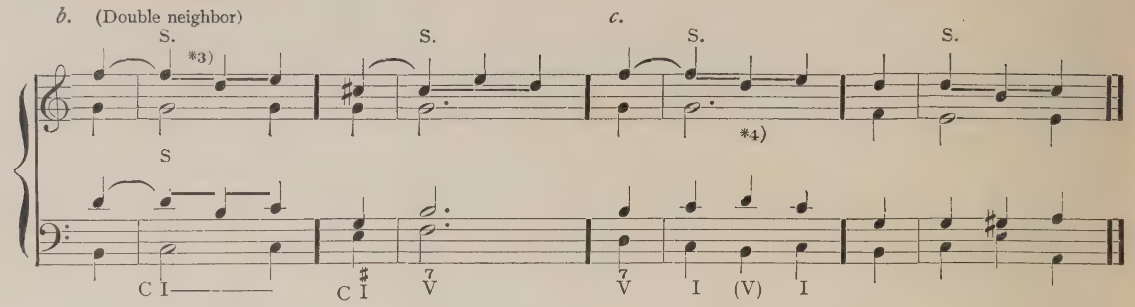
c. The suspension may be *transferred* to another part, when *the chord remains the same.* And double- or triple-suspensions may exchange parts. Ex. 296*d*. But the suspension should always be resolved in the part where it last appears.

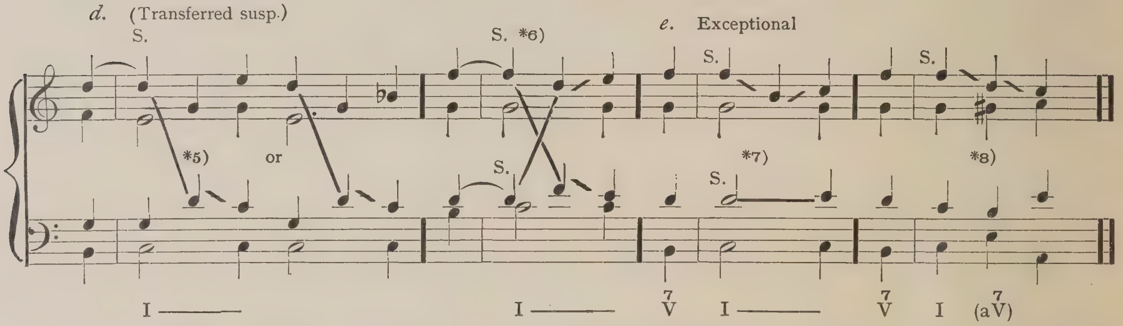
d. In some rare cases the suspension, after moving *downward to some other active tone* (like the leading-tone, or a seventh), may *evade* its resolution; comp. Ex. 168, Note *3). Ex. 296*e*. For example:

a. (Deferred resolution.)

Ex. 296.



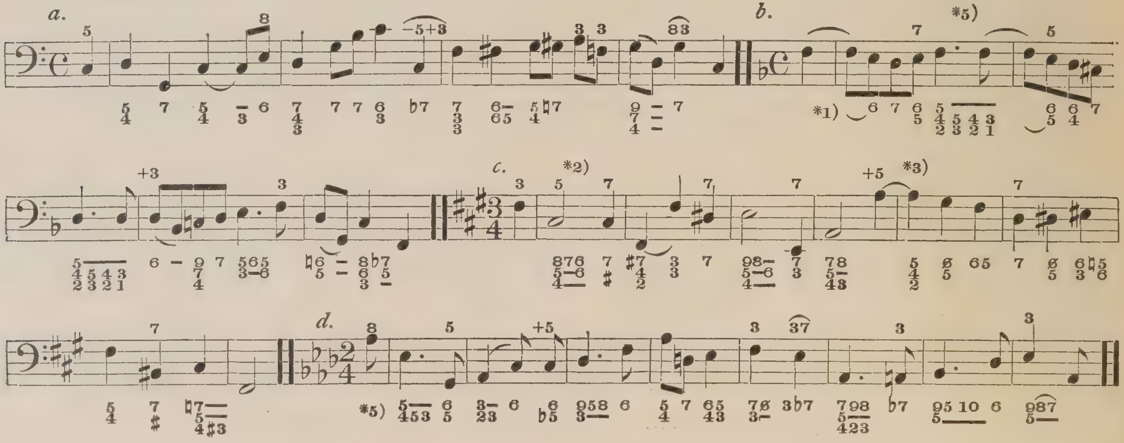

b. (Double neighbor)
S.
*3)
S.
c.
S.
S.
*4)
S
C I
C ♯I
7 V
7 V
I
(V)
I


d. (Transferred susp.)
S.
S. *6)
e. Exceptional
S.
S.
*5)
or
S.
*7)
S.
*8)
I
I
7 V
I
7 V
I
7 (aV)

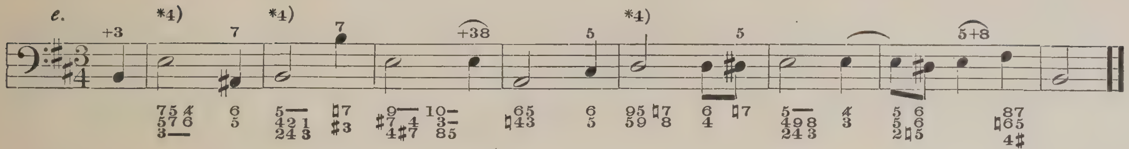
*1) The resolution of the susp. *d* is deferred by *e*, the 3rd of the resolving-chord. — *2) The susp. *d* resolves properly to *c*, after *g* has been interposed. The same susp. recurs two measures later, in another part. — *3) The susp. *f* is the *upper neighbor* of its resolving-tone *e;* it passes over into the *lower neighbor d*, and the principal tone follows and resolves both. The same act takes place in the tenor. — *4) Here the interposed lower neighbor (*d*) is harmonized separately. And in the next measure the same occurs. — *5) The susp. is transferred to tenor and resolved *there.* — *6) The suspensions in soprano and tenor change places. — *7) The susp. in soprano moves down to the leading-tone, and thus evades its own resolution. — *8) The resolution of *f* is evaded by passing down to the chord-7th. — See par. 426.

EXERCISE SIXTY.

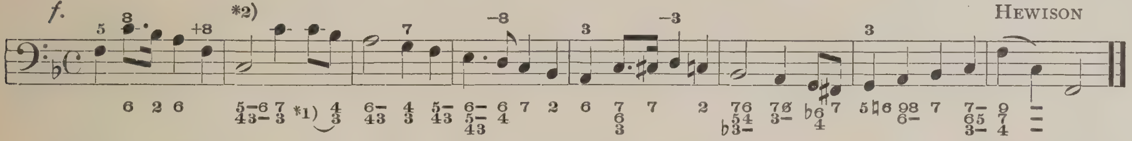
A. Basses, to be worked out and analyzed.



e.

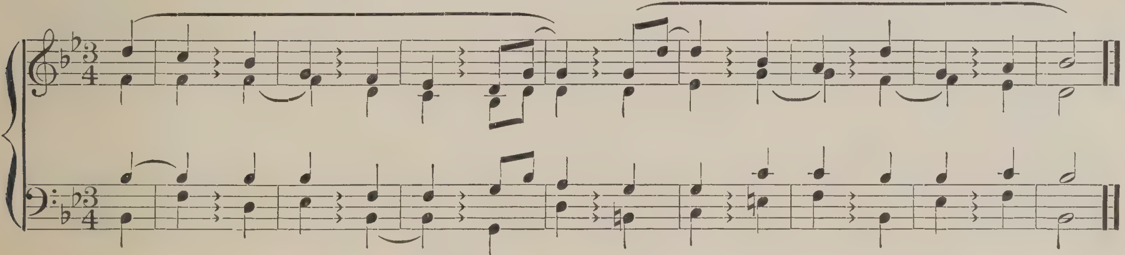


f.



*1) Exercise 59 Note *1). — *2) Rhythm ♩ ♩. ♪. — *3) *D* in soprano. — *4) Rhythm in these measures, exceptionally ♫ ♩; see Exercise 24, Note *3). — *5) The groups of figures which belong to one single bass note denote exactly the *course of the parts, as usual.*

B. The following period is to be completed, by filling in the 2nd beat of each measure, *according to Ex. 294; i.e.*, one or more of the parts must make a progression at the same time that the susp. (on the 1st beat) is being resolved diatonically downward.

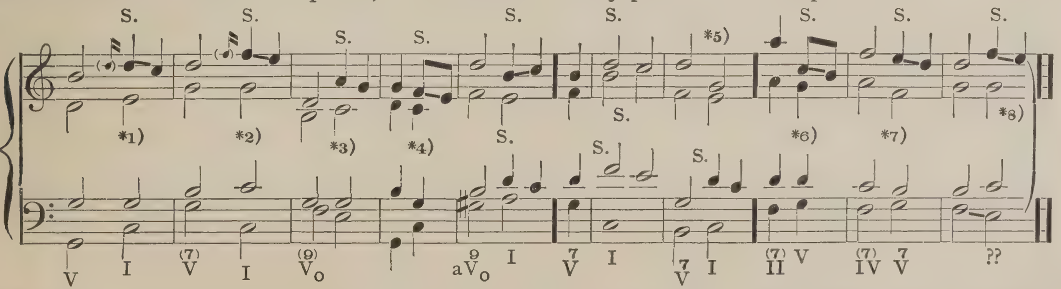


C. Add a number of **Original phrases**, or periods.

IRREGULAR INTRODUCTION OF THE SUSPENSION.

382. Although the suspension is defined as a *prepared* dissonance, it is not necessary to prepare it *in the same register*. As neighboring-note, it has a right to enter in any rational manner, and it fully asserts its place among those tones of its class which have the advantage of "preparation," if it has a place *anywhere in the preceding chord*, — perhaps as possible seventh, or even ninth, *understood*. This irregular introduction is best in soprano, but admissible in any part. For example:

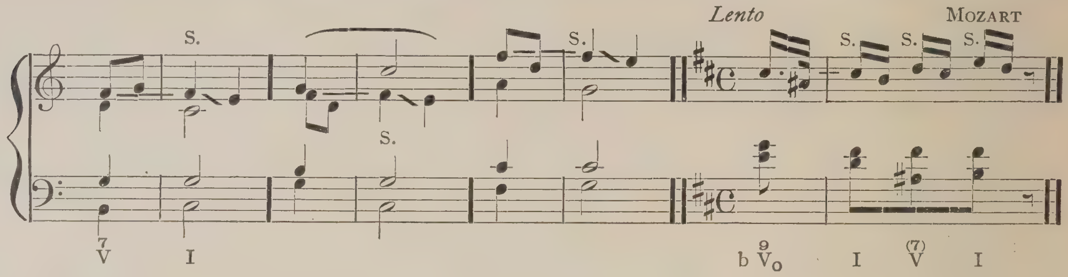
Ex. 297.



*1) The suspension *d* in soprano is not "prepared" where it appears, but in the alto, on the preceding beat. The small note in brackets is not to be played, as it is placed there merely to show that the suspension is actually harmonic in the foregoing chord. — *2) The suspension *f* does not appear in the preceding chord at all, but is *understood*, as very probable seventh. — *3) The suspension is an understood ninth. — *4) Understood 7th, entering diatonically (as passing-note). — *5) The suspension *d*, in tenor, is prepared in the soprano. — *6) An understood 7th of the preceding II. — *7) Understood 7th of the IV. This is somewhat far fetched, but defensible. — *8) Very doubtful, because of the clash on the 3rd step in the outer parts.

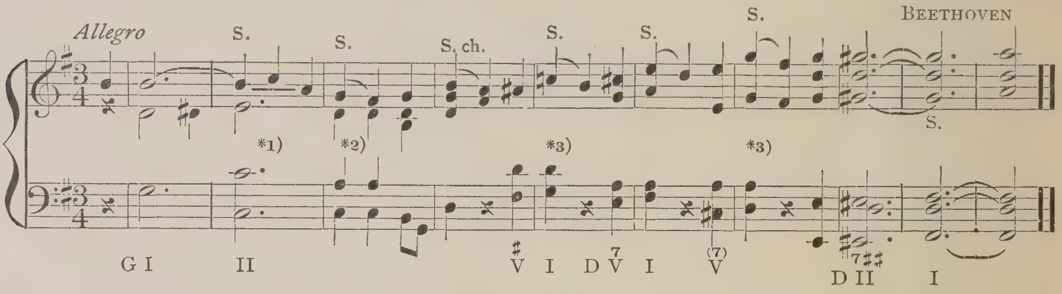
383. Sometimes the suspension is properly prepared, in the same part, but *intercepted* by some other interval of the same chord. Thus:

Ex. 298.


S.
S.
S.
Lento
MOZART
S.
S.
S.
7
V
I
9
b V0
I
(7)
V
I

Additional illustration:

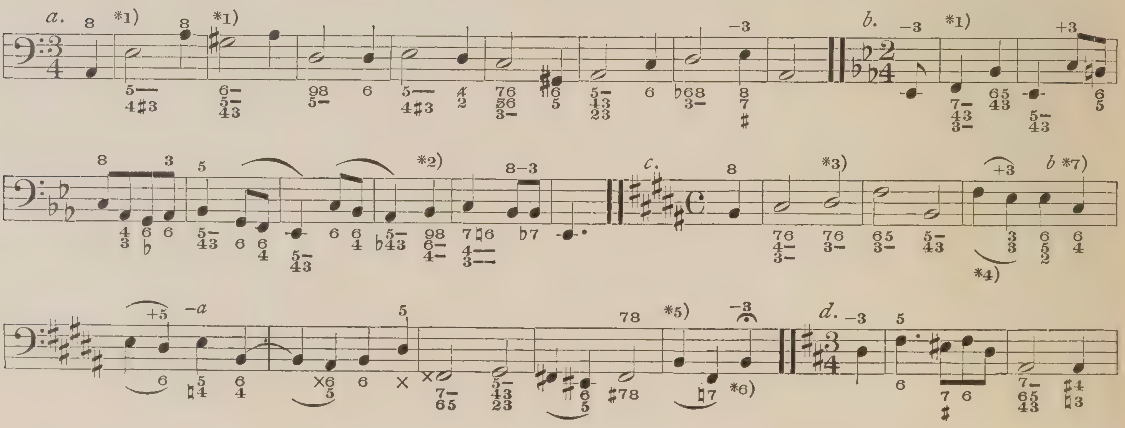
Ex. 299.

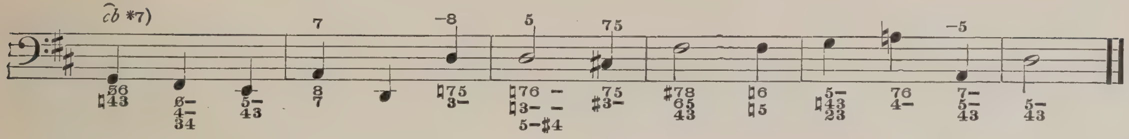

Allegro
S.
S.
S. ch.
S.
S.
S.
BEETHOVEN
S.
*1)
*2)
*3)
*3)
G I
II
♯
V
I
D
7
V
I
(7)
V
7♯♯
D II
I

*1) The resolution of the susp. *b* (in sopr.) is deferred by the interposition of *c*. — *2) The susp. *g* is a possible 7th of the preceding chord (II). — *3) These suspensions are also 7ths of the foregoing dom. chords.

See **Mendelssohn,** Songs without Words, No. 2, measures 33, 37, 39; No. 4, measures 7, 8, 14, 15; No. 18, measure 4; No. 19, measure 5; No. 20, measures 3, 11, 18, 19; No. 26, measures 6, 10, 11.

EXERCISE SIXTY-ONE.


a.
*1)
*1)
b.
*1)
*2)
c.
*3)
*7)
*4)
*5)
*6)
d.



*1) The suspensions may be introduced strictly, as before, or irregularly, as shown in Ex. 297. The choice is left to the student, but preference is to be given to the *free* introduction. — *2) Suspensions strict. — *3) Suspensions all irregular, and chiefly in soprano. — *4) Exercise 59, Note *1). — *5) The chord of the 7th falls on the *first* beat. — *6) It is not unusual for a phrase to end thus in the pos. of the third. Such perf. cadences are called "Incomplete." — *7) These letters indicate the soprano notes.

Add a number of **Original phrases** or periods.

THE HARMONIZING OF MELODIES, WITH SUSPENSIONS.

384. The treatment of certain tones of a given melody as suspensions may be obligatory or optional, according to circumstances. The rules are as follows:

a. Only *accented* beats (or the accented fractions), and

b. Only such tones as *progress diatonically* (as resolutions), may be regarded as suspensions (par. 375*d*).

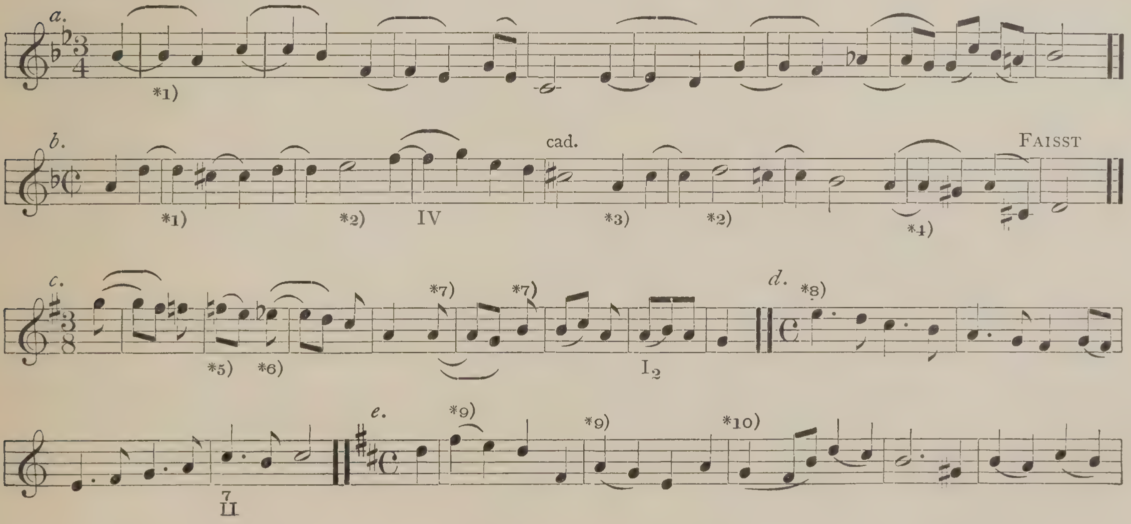
c. If the accented tone which progresses thus is *tied to, or repeated from, the preceding tone*, there is every reason to suppose it to be a suspension, with regular preparation; but,

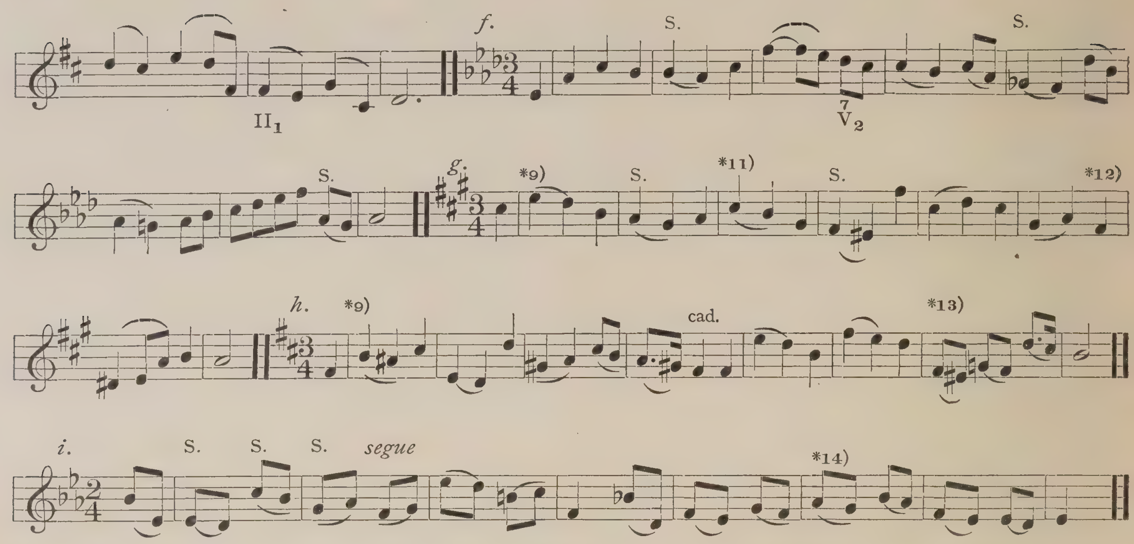
d. Even when such a tone enters with a *skip*, it may be a suspension, with irregular introduction (as above).

e. The principal guides will be the natural or necessary order of chords, and the character of the melody.

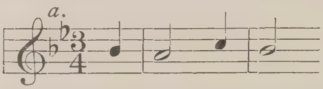
EXERCISE SIXTY-TWO.

Melodies, to be harmonized with occasional suspensions in the given soprano, or *in any other part*.

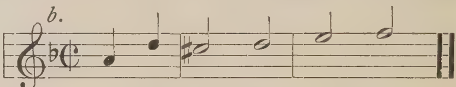




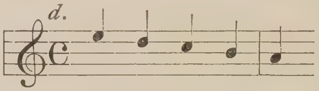
*1) Each of these tied notes may be a suspension (par. 384*a*, *b*, *c*). In order to become such, it must be ignored (as inharmonic tone) and the **following** *tone must be harmonized in its place*, as if the melody were simply thus:



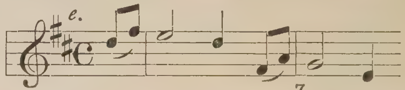
etc., — and



etc. — The pupil may, if he chooses, first harmonize the whole melody in this simple form, and introduce the suspensions afterward. — *2) This tone becomes a susp. on the 3rd beat. It is clear that this measure differs from the others only in *notation*. — *3) This must be again the V, because the preceding leading-tone (*c*♯) leaps downward. — *4) May be *a* minor, or a mixed chord of *d* minor. — *5) It does not matter, of course, whether the tone is tied or re-struck, at the accent. — *6) *G* major. — *7) Modulations at option. — *8) Melody originally:



etc. — *9) At these (and other) points the suspensions may be irregularly introduced. See par. 384*d*, and review par. 382. The 2nd note of the slurred group is harmonized on the *1st beat*, and the 1st note *must belong to the foregoing chord*, whose choice it therefore determines. The 1st two measures of this (5th) melody were then, originally:



etc. — *10) *b* minor I. — *11) *f*♯ min. IV. — *12) Altered $\overset{7}{\text{II}}$ of *A* major. The I_2 follows. — *13) Mixed $\overset{7}{\text{IV}}$ of *b* minor. The I_2 follows. — *14) *E*♭ maj. or *A*♭ maj. or *f* minor.

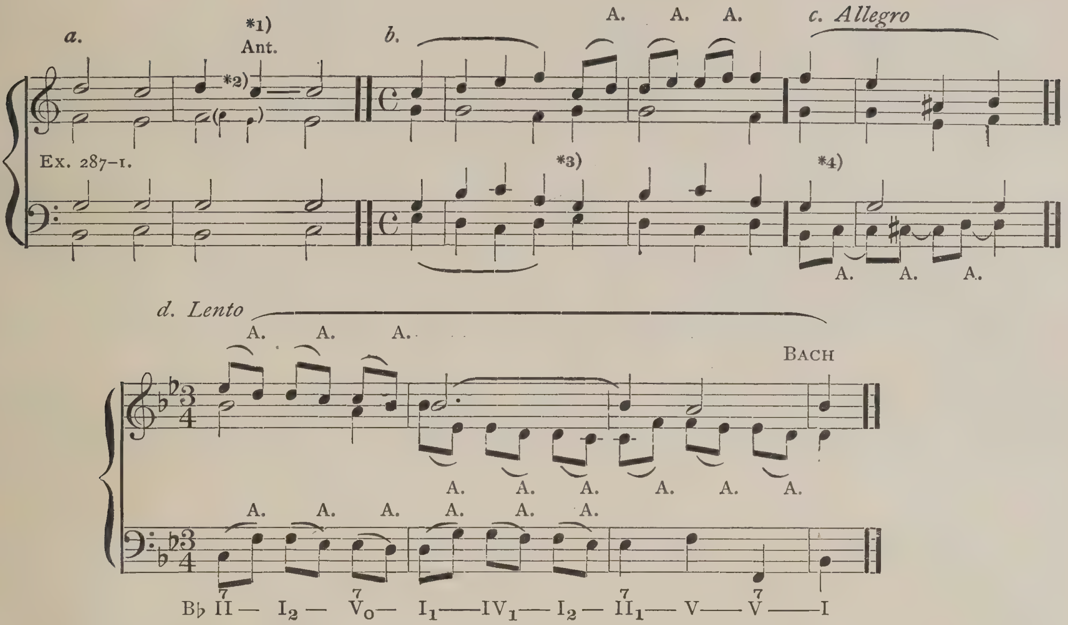
Harmonize, also, melody *e* of Exercise 27; and melody *a* of Exercise 36.

SECTION 3. THE ANTICIPATION.

385. The anticipation is exactly the opposite of the suspension, and consists, as the term implies, in a tone which does not belong (legitimately) to the momentary chord, but to the *following* one.

It is much less common than the suspension, because it is difficult and unnatural to accept a tone *before its time.* Therefore, it is limited in its uses. It occurs most frequently: 1st, at **cadences;** and 2nd, in **sequences** and the like, where one anticipation appears to confirm and justify the other. For example:

Ex. 300.



*1) Ant. or A. signifies anticipation. — *2) This *c* does not belong to the chord with which it appears, but to the *following* one. A similar ant. may be made in alto, as shown by the notes in parenthesis. — *3) Any series of chords may be embellished (in any part or parts) with anticipations, as shown here. — *4) Here the anticipations (in bass) are *tied* to the anticipated tone. This is quite unusual, because of its unfavorable effect upon the rhythm. It is best in rapid tempo. See also:

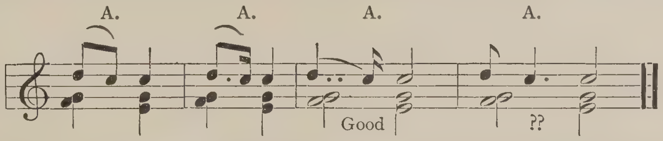
Bach, 48 Preludes and Fugues, Book I, Fugue No. 14, measures 8, 9; 15, 16; 19, 20; 21-24 (bass); 35-38.
Beethoven, op. 49, No. 2, 2nd movement, first measures.

HINTS AND DIRECTIONS.

386. *a.* Anticipations are most intelligible in soprano, but are possible in any part.

b. The ant. should not exceed in duration *half* the value of the chord in which it occurs; the shorter it is, the more easily it will be recognizable as a foreign element, and the less it will endanger the rhythm.

Ex. 301.



c. Anticipations differ from suspensions in their rhythmic location, being always found upon *unaccented* beats, or weak fractions of beats, whereas suspensions occupy *accented* beats, or accented fractions (par. 375*d*).

d. Anticipations are generally re-struck; seldom *tied* to the anticipated note. Ex. 300, Note *4).

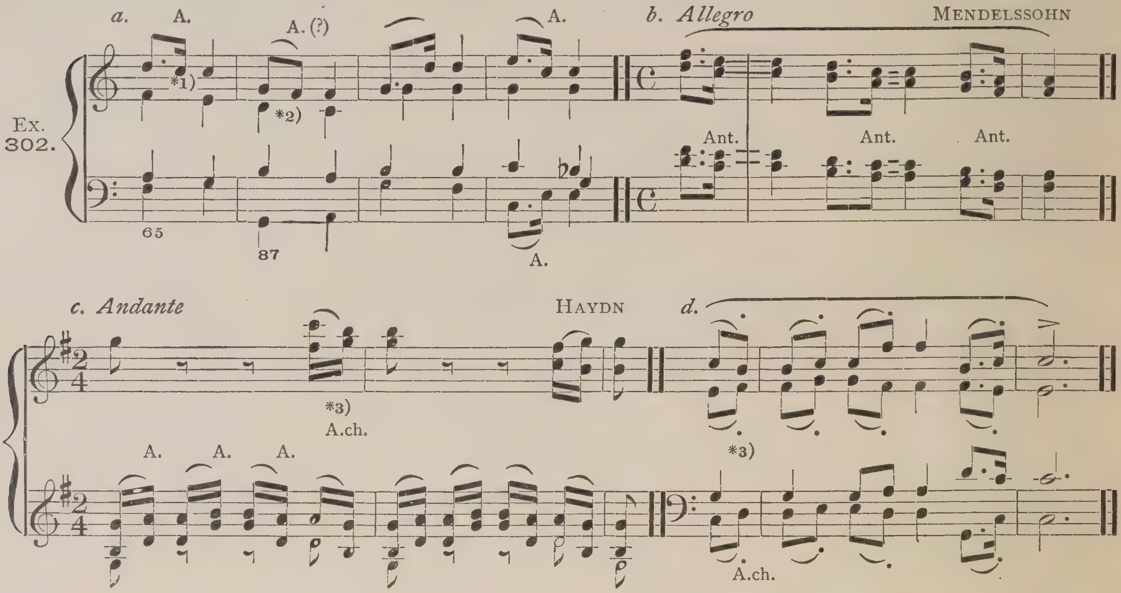
e. An anticipation may be introduced from *any* lower or higher tone. As it pertains exclusively to the tone which *follows*, the manner of its introduction is of no consequence.

Harmonic Anticipations.

387. Anticipations may be *harmonic* as well as suspensions. If a tone bears a closer and more legitimate relation to the following chord than to its own, and, especially, if it is comparatively *short*, it will produce the impression of an ant., whether it is inharmonic or not. And, on the same principle, the *whole following chord* may be anticipated. Review pars. 376, 377.

Harmonic anticipations are preferable to inharmonic ones, because they sound better, and disturb the harmonic sense less than the latter. For example:

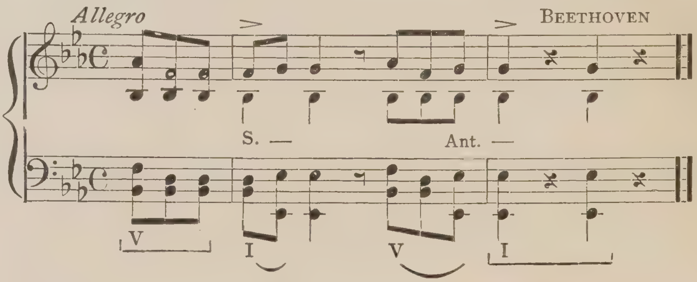
Ex. 302.



*1) This *c* might represent the IV, and almost surely would, if it were not so *brief*. — *2) The *f*, as half-beat, is probably a legitimate seventh; but its relation to the following tone gives it the appearance of an anticipation. — *3) Anticipating-chord. In these two phrases, the 2nd chord of each beat is an ant. of the following beat.

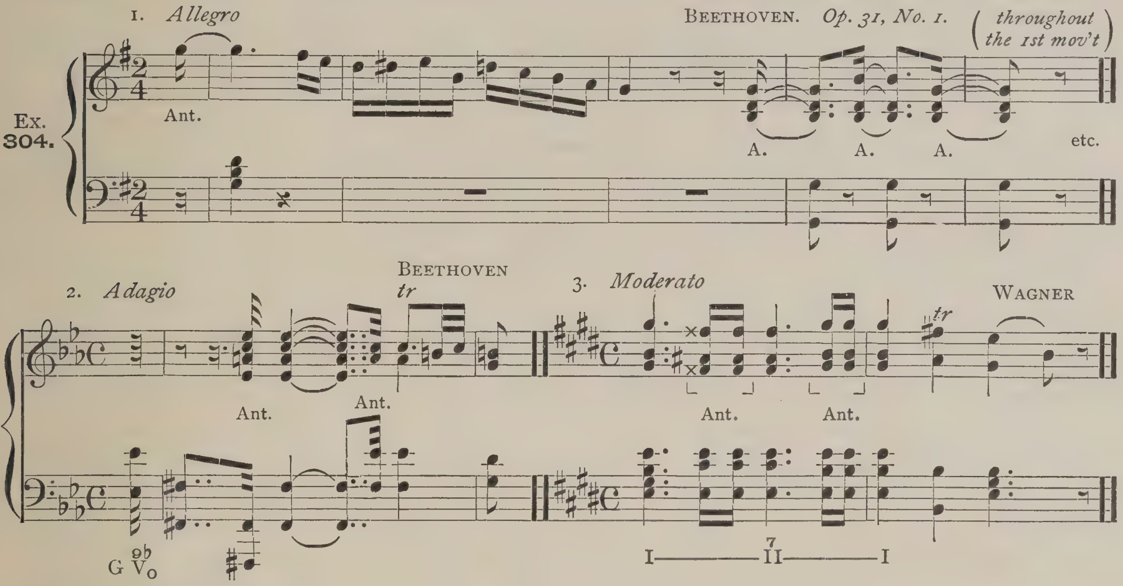
388. When, as here, a chord is repeated over the bar (or accent) in violation of the rule of rhythm in par. 85, it may be difficult, or even impossible, to determine accurately whether the first chord is an anticipation of the second one, or the second a prolongation (as suspension) of the first. (The tied notes, in the right hand *alone*, in Ex. 292, No. 2, might be analyzed in either way.) In cases where there is the least doubt, it *does not matter how they are construed*. The main (and essential) requirement is, *to define the fundamental beats* so clearly that no confusion of rhythm can possibly result. This matter is explained in par. 377*b*, which review. The following is an interesting and simple example of both cases in succession:

Ex. 303.



389. There is no doubt of the following examples being anticipating-chords, principally on account of their brevity. They might aptly be termed "*rhythmic* anticipations," as they do not affect the fundamental harmony in the least.

Ex. 304.


1. *Allegro*
Beethoven. *Op. 31, No. 1.*
(*throughout the 1st mov't*)
Ant.
A.
A.
A.
etc.
2. *Adagio*
Beethoven
tr
Ant.
Ant.
G $V_0^{9\flat}$
3. *Moderato*
Wagner
tr
Ant.
Ant.
I
II^7
I

See Ex. 309, **Mozart,** measure 3.

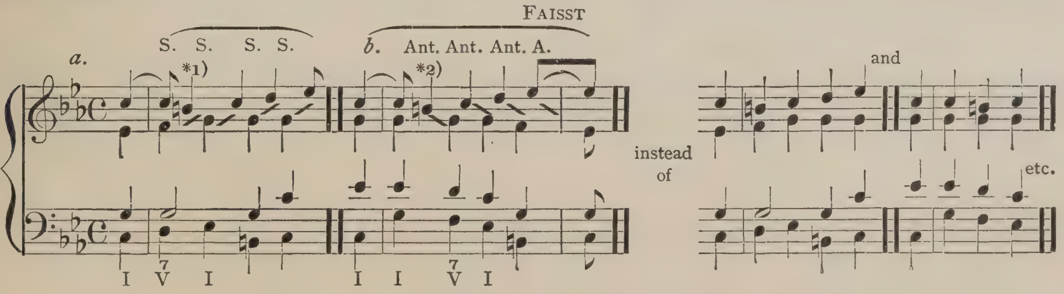
SYNCOPATION.

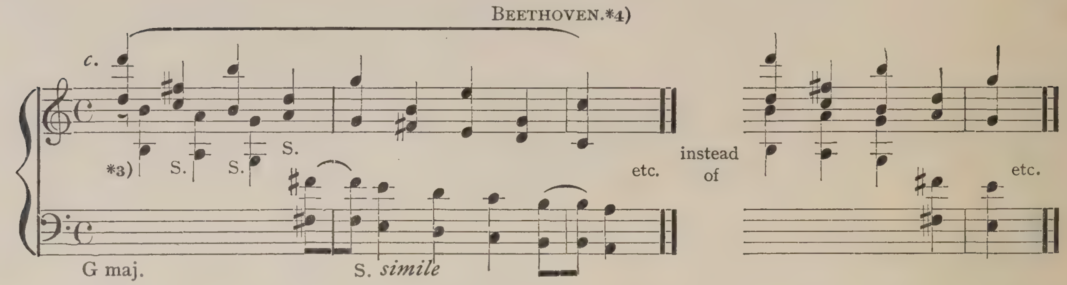
390. Syncopation is the term applied to that kind of irregular rhythm in which the *longer tones* occupy comparatively *weaker* beats, or, more specifically, fall *between* the beats. It is simply a violation of the metrical accentuation (see par. 4, and Ex. 5, *f*, *g*, *h*, *i*,), and results from *tying an unaccented beat, or fraction of a beat, to the following accented beat, or full beat.*

It is the most perspicuous example of "*oblique rhythm*" (par. 374, last clause), because the syncopated part or parts are literally bent forward or backward so as to differ (by a beat, or fraction of a beat) from the other parts, which mark the *regular* rhythm.

391. Whether the syncopated notes, when they fall *exactly between the beats*, are suspensions or anticipations, depends of course upon which way they were "bent;" that is, whether they belong to the *following* or *preceding* chord. Sometimes, as stated in 388, they can be accounted for in either way, and, as a rule, it is quite unnecessary to consider this doubtful question at all. The notes can be produced, and defined, simply as "oblique rhythm," or "syncopation." In the following example the distinction is very plain at *a* and *b:*

Ex. 305.

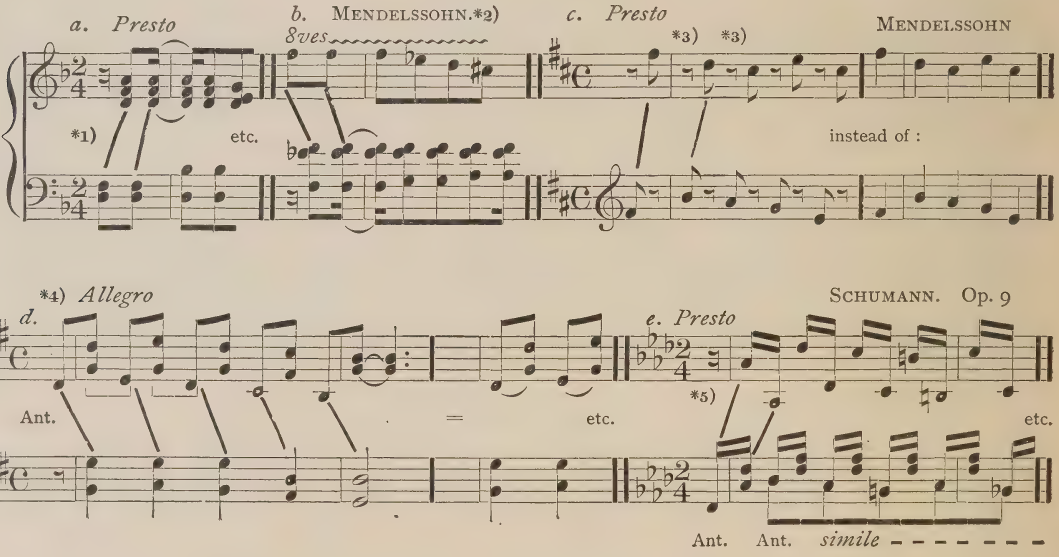

Faisst
a.
S. S. S. S.
*1)
b.
Ant. Ant. Ant. A.
*2)
I
V^7
I
I
I
V^7
I
instead of
and
etc.

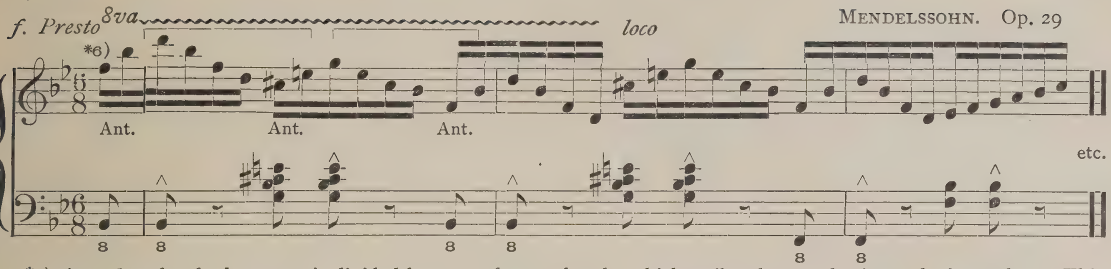

BEETHOVEN.*4)
c.
*3)
S.
S.
S.
etc.
instead of
etc.
G maj.
S. simile

*1) These syncopated soprano notes, which fall *exactly between the beats*, belong in each case to the chord which *precedes*, and therefore become suspensions. — *2) Here the very same notes, owing to an alteration in the location of the *chords*, are anticipations of the *following* beat. The direction of the oblique rhythms is indicated by the slanting lines. Such double treatment is possible only *when the melody moves diatonically* (*i.e.*, stepwise), — as this is necessary in order to resolve the tones *when suspensions*. — *3) The syncopated notes in the "left hand," being struck *after* their beat, become suspensions. — *4) Piano Sonata, op. 2, No. 3, 1st movement; see also measures 11, 12 (bass); also *from the double-bar*, measures 26, 27; 30, 31; 34–37; 58–65.

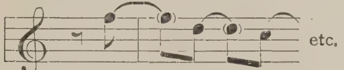
392. Upon this principle of oblique rhythm in one or more parts of the harmony, very unique effects may be produced. For instance, any two parts of the harmony (the two hands in piano music and the like; or one voice against the other three; or the melody against the accompaniment, etc.) may appear *successively*, instead of simultaneously (Ex. 306 *a*, *b*, *c*). Or the chords may be "broken" ("arpeggiated" — as in Figuration) across two beats or rhythmic groups: *i.e.*, partly in one and partly in the next. For illustration:

Ex. 306.


a. Presto
*1)
etc.
b. MENDELSSOHN.*2)
8ves
c. Presto
*3)
*3)
MENDELSSOHN
instead of :
*4) Allegro
d.
Ant.
=
etc.
SCHUMANN. Op. 9
e. Presto
*5)
etc.
Ant.
Ant.
simile



*1) At *a*, *b* and *c* the harmony is divided between the two hands, which strike alternately, instead of together. This does not affect the harmony at all, but simply the *rhythm*, which it makes "oblique," as indicated by the slanting lines. — *2) *Variations sérieuses*, op. 54, Finale; see also Var. 5, 11, 15. — *3) These rests remove the appearance of syncopation, but it is clear that they merely take the place of *ties*. Thus:



See also **Mendelssohn,** op. 72 No. 6, measure 3–5, 11–13, etc. And Ex. 325, No. 3. — *4) These eighth-notes, with connected stems, should occupy a beat together, instead of lying across the bars (or beat-lines). The heavier bass tones define the rhythm. — *5) The left hand here, is like the right hand at *4). This example is from **Schumann's** "Carneval" ("Paganini"). See also his "Fabel," op. 12. — *6) The connected stems define the "broken" chord; the brackets define the half-measure groups. Their disagreement is somewhat similar to *4). — See further:

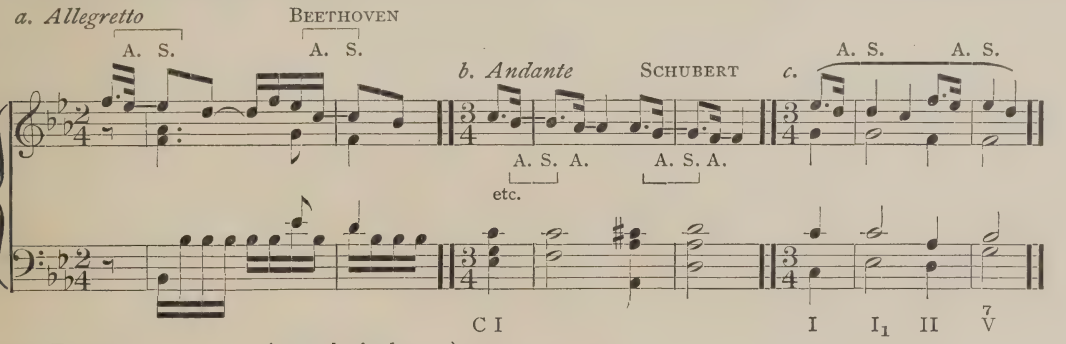
Schumann, Phantasie op. 17, 1st movement, measures 95, 96; 105–118 (bass); 2nd movement, measures 22–25 (soprano); 62–65 (bass); also the last 28 measures of the same movement; 3rd movement, measures 27, 28. — **Schumann,** op. 6, No. 4.

N.B. — These oblique rhythms are intelligible and effective only in **rapid tempi,** *where the conflicting harmonies are of but short duration.*

---

393. The anticipation sometimes serves merely to prepare a suspension. In such cases the ant. is generally *harmonic*, but not necessarily so. For example:

Ex. 307.



Compare Ex. 297, measures 1, 2 (parenthesized notes).

FUNDAMENTAL PRINCIPLES.

The anticipation is a tone, usually inharmonic but possibly harmonic, which belongs to the *following* chord.

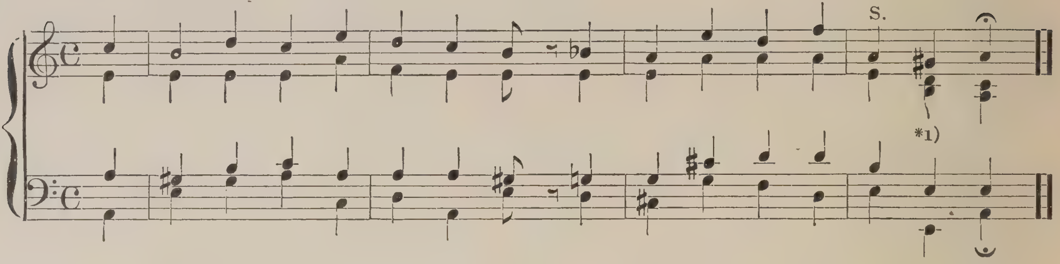
Anticipations are always unaccented, and generally very short.

Syncopation is a violation of the metric accentuation, and usually represents the location of a tone *between* beats, instead of upon the beat (or rhythmic group).

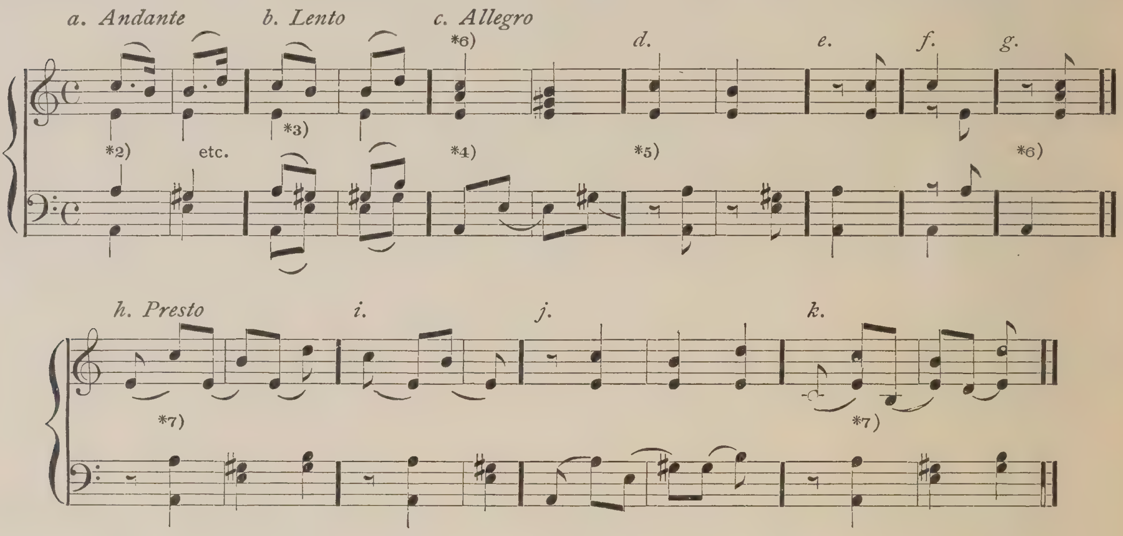
EXERCISE SIXTY-THREE.

A. The following chord-series (in period-form):

Ex. 308.

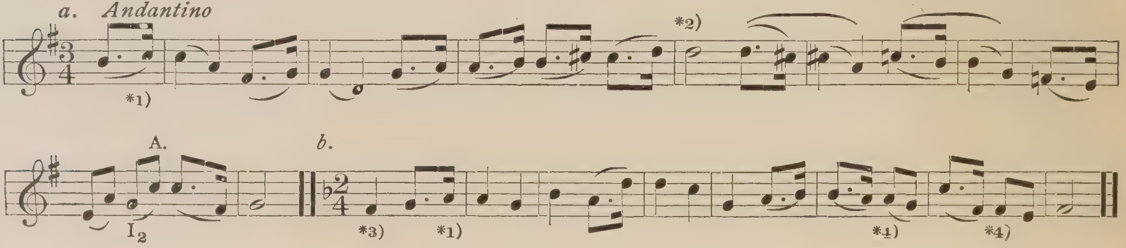


is to be elaborated with anticipations (either at the piano, *at sight,* or as written exercise) in the following ways:

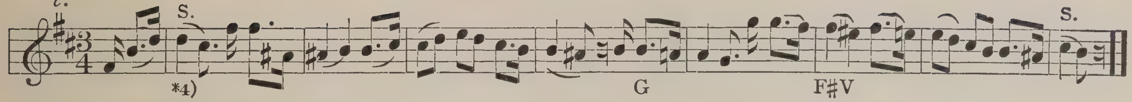

a. Andante
b. Lento
c. Allegro
*6)
d.
e.
f.
g.
*2)
etc.
*3)
*4)
*5)
*6)
h. Presto
i.
j.
k.
*7)
*7)

*1) It is by no means unusual to add supplementary notes here and there, as in these last two chords, and the student may hereafter practice this licence of *altering the volume* of the harmony (either by additions or by *omissions*), wherever his taste and judgment suggest. See par. 462. — *2) Ex. 302, measure 1. — *3) Ex. 302*d*. — *4) Ex. 300*c*. — *5) Ex. 306*b*. — *6) The 3 upper parts may be written in a group upon the upper staff, as here, wherever desirable. — *7) Ex. 306*d*.

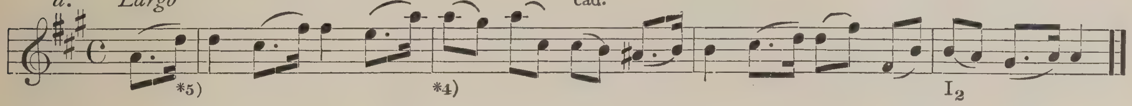
B. Melodies, with anticipations, to be harmonized as usual.


a. Andantino
*1)
*2)
A.
I2
b.
*3)
*1)
*1)
*4)

c.

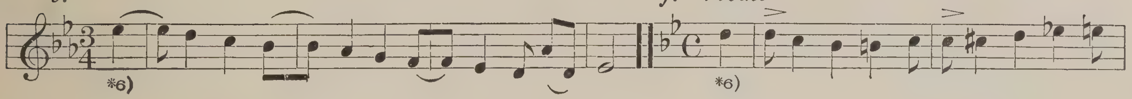


d. *Largo*

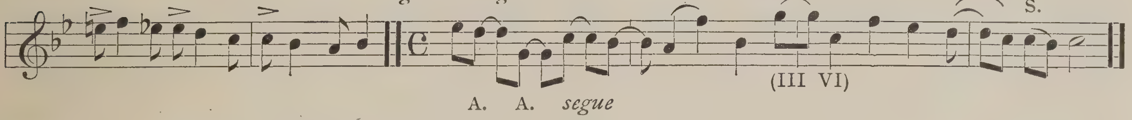


e.

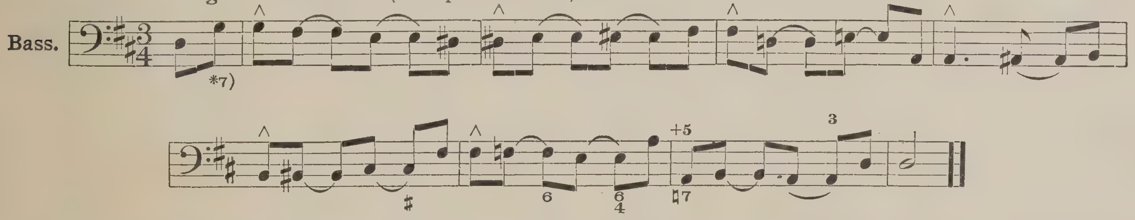
f. *Vivace*



g. *Allegro*

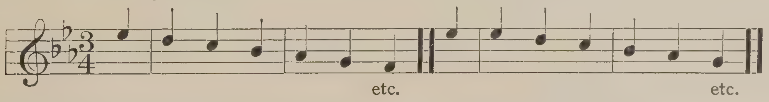


h. 1. *Allegro* 2. *Andante* (anticipation-chords)



*1) All of these short notes must be harmonized as anticipations; that is, they are simply ignored altogether, because *they do not belong to the beat in which they occur*, but to the following one. — *2) *D* maj. or *b* minor. — *3) Compare Exercise 22, melody *f*. — *4) Par. 393. — *5) Single anticipations, or, *better*, *anticipation-chords* at each 16th-note. — *6) These two melodies, consisting of *stepwise progressions*, are to be harmonized in two ways: (1) so that the syncopated notes will be *suspensions* (on the accented fraction of the beats); and (2) so that they will be *anticipations* (on the weak fraction), as shown in Ex. 305, *a* and *b*. Melody *e* will be thus reduced to its primary form:

1. For suspensions: 2. For anticipations:



*7) The weak fraction of nearly every beat is to be an anticipation, or ant.-chord. The three upper parts may be placed together on the upper staff, as at Ex. 308*g*, Note *6).

C. A number of **Original phrases** and periods.

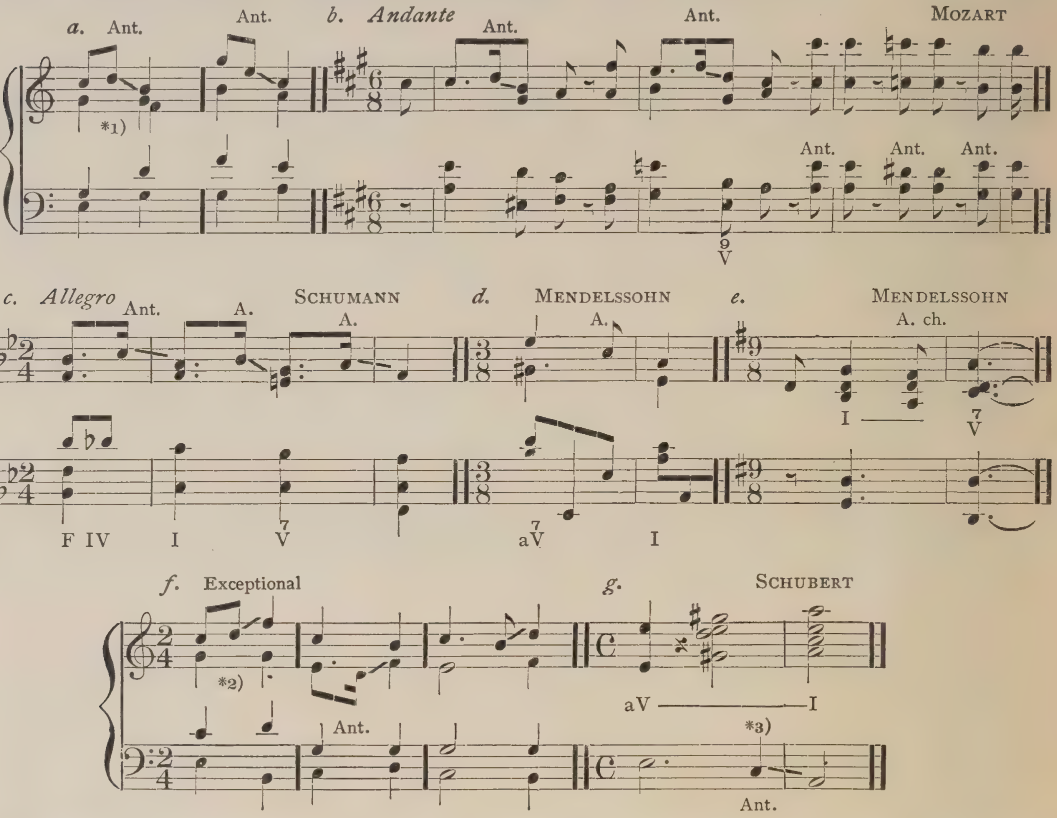
THE IRREGULAR ANTICIPATION.

394. The irregular anticipation is the counterpart of the irregular suspension, and is so called because it *progresses with a skip*, instead of remaining upon the note which it anticipates. The anticipated note appears in some other part, or it is *understood*, as possible seventh (ninth?) of the next chord. Comp. par. 382.

a. This licence is most effective in the soprano.

b. As a rule, the irregular anticipation skips *downward*. For example:

Ex. 309.

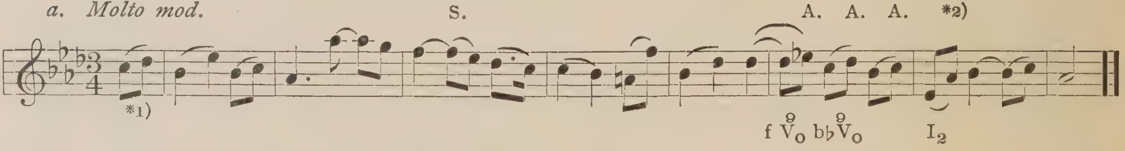

a.
Ant.
Ant.
*1)
b. Andante
Ant.
Ant.
MOZART
Ant.
Ant.
Ant.
9
V
c. Allegro
Ant.
A.
SCHUMANN
A.
F IV
I
7
V
d.
MENDELSSOHN
A.
7
aV
I
e.
MENDELSSOHN
A. ch.
I
7
V
f. Exceptional
*2)
Ant.
g.
SCHUBERT
aV
I
*3)
Ant.

*1) This mode of treating the anticipation, although a licence, is preferable to the strict treatment. In almost all of the above illustrations, the irreg. anticipation (in soprano) reappears in the next chord in the tenor. — *2) The skip *upward* from the irreg. ant. is exceptional. — *3) The irreg. ant. in *bass* is very unusual and difficult to justify.

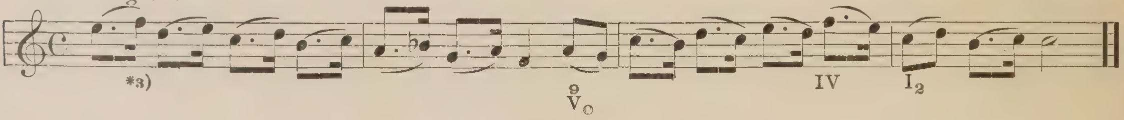
EXERCISE SIXTY-FOUR.

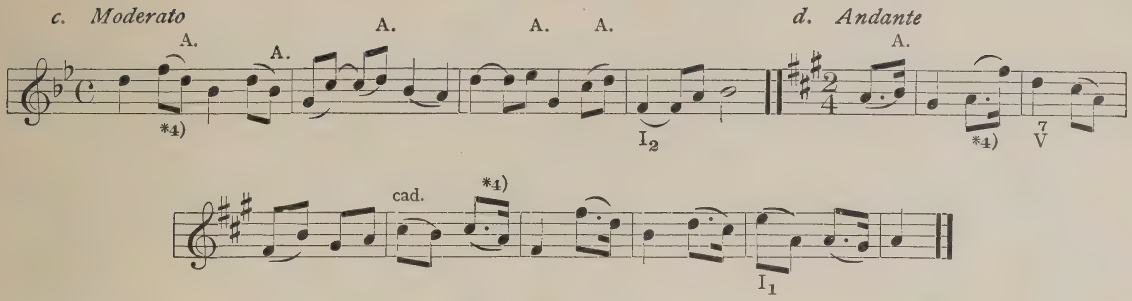
Melodies, with irregular anticipations.

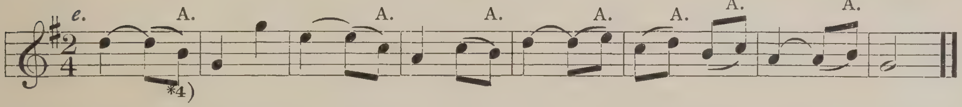
a. *Molto mod.*


S.
A. A. A.
*2)
*1)
f $\overset{9}{V}_0$ b♭$\overset{9}{V}_0$
I_2

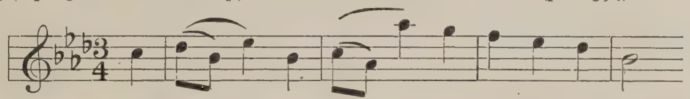
b. *Allegretto*


*3)
$\overset{9}{V}_0$
IV
I_2





*1) The slurred notes are harmonized with one chord, in such a way that the second fraction of the beat becomes an anticipation. If, as here, it progresses with a leap, the *next* chord must contain it (par. 394). Melody *a*, reduced to its primary form, would be:



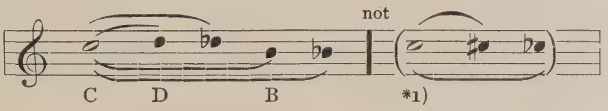
etc. — *2) Dominant organ-point during this measure. — *3) Each 16th-note an irreg. anticipation. — *4) In order to be a genuine, *inharmonic*, anticipation, the first tone of the beat must be harmonized with a chord which *does not contain the second tone.*

Add **Original phrases** and periods.

SECTION 4. THE NEIGHBORING-NOTES.

395. Every tone in music is attended by four neighbors, consisting in the *next higher and next lower letters*, in their notation as *whole step and half-step*. Thus, of the tone *C:*

Ex. 310.



*1) A *chromatic* tone cannot be a neighboring-note, because the *letters* must differ.

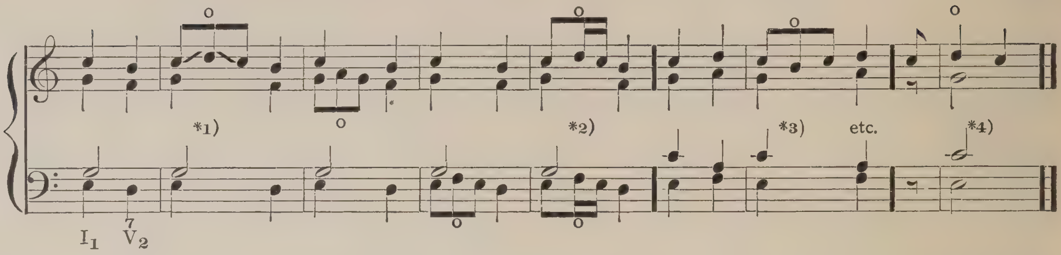
396. A neighboring-note may appear in almost any connection *with its own harmonic tone,* — called the principal tone, — as unessential or embellishing tone. This is valid in its most comprehensive application, and is due to *relation by propinquity,* — the third of the three classes of relationship which govern musical associations. See par. 40.

There are two classes of neighboring-notes, namely: 1. The simple embellishing tone or **neighboring-note** proper; 2. The **passing-note.**

THE NEIGHBORING-NOTE PROPER, AS "LOCAL" EMBELLISHMENT.

397. The term *local* embellishment may be applied to that form of association in which the neighboring-note *returns to the same principal tone from which it proceeded.* In such cases no other harmonic interval is involved than the one principal tone, and the embellishment refers to that one tone only. Thus (the neighboring-notes are marked o):

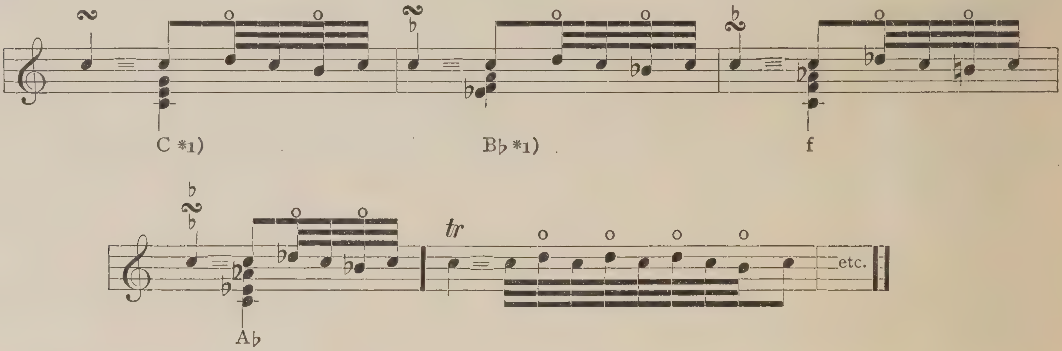
Ex. 311.



*1) The *d* in soprano is the upper neighbor of the chord-interval *c*. It comes from it and returns to it as simple "triplet" embellishment of that one tone. This process can be applied to *any* chord-interval, as in the following measures (*g* in alto, *e* in bass). — *2) Possible in any rhythm. — *3) The *b* in soprano is the *lower* neighbor of *c*. — *4) The *accented* neighboring-note has the effect of a suspension, but is not prepared. Comp. par. 373.

398. All the common forms of embellishments or "grace-notes" (the turn, trill, appoggiaturas, mordent, etc.) are based upon such association or *alternation of a principal tone with one or another of its neighb.-tones.* Thus:

Ex. 312.



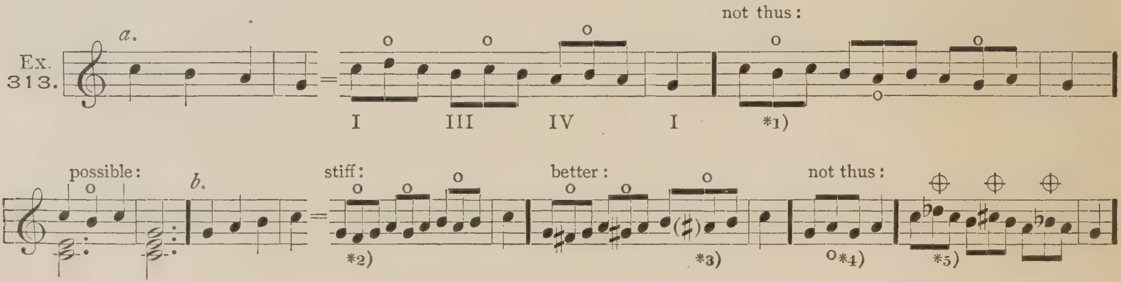
*1) The *key* determines the choice of neighboring-note. See par. 399, rules.

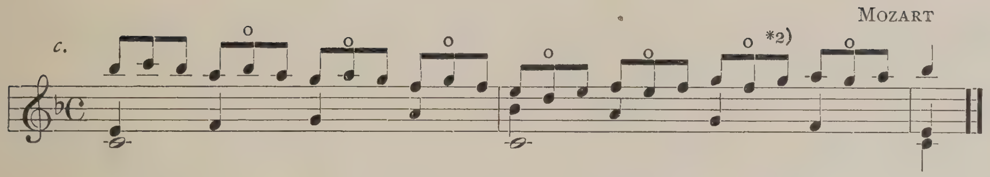
399. The choice between the four possible neighbors is not altogether optional, and sometimes very important. The rules are as follows:

a. The *lower* neighbor is generally chosen in embellishing a principal tone which is about to *ascend*. And the *descending* principal tone usually takes the *upper* neighbor. This is almost obligatory when the principal tone moves stepwise.

b. The **upper neighbor** *always agrees with the momentary scale* (*or key*). The **lower neighbor** may also agree with the scale, but *it is usually the half-step.* For example:

Ex. 313.





*1) The lower neighb.-tone is not good here, because it is not the right direction into the next (lower) principal tone. — *2) In older music the *lower* neighb.-tone was also made to agree with the scale; but when it is a *whole* step, it is sometimes stiff. — *3) The most notable exception to the *lower half-step is made at the leading-tone,* which is almost always embellished by the *natural* 6th step, which lies a whole step below. — *4) Comp. Note *1). — *5) *C* major. See rule *b*, above.

The Passing-note, as "Progressive" Embellishment.

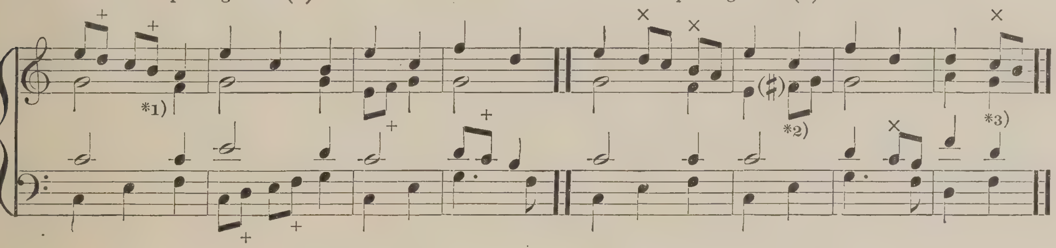
400. *a.* When a neighboring-note, instead of returning for resolution to its own principal tone, progresses in the same direction *diatonically* into another principal tone (or into the neighboring-note of the *next* principal tone), it is called a **passing-note,** because it becomes a medium in connecting the tones *of which it is a common neighboring-note.*

b. The passing-note may be *unaccented* or *accented*, at option. The only difference is, that the accented passing-tone is the more emphatic and effective.

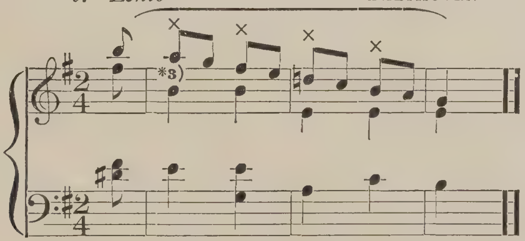
c. In notation, the passing-notes *agree with the prevailing scale.* See Ex. 329, Note *5).

Ex. 314.

a. Unacc. passing-notes (+): *b.* Acc. passing-notes (×):



c. *Lento* BEETHOVEN

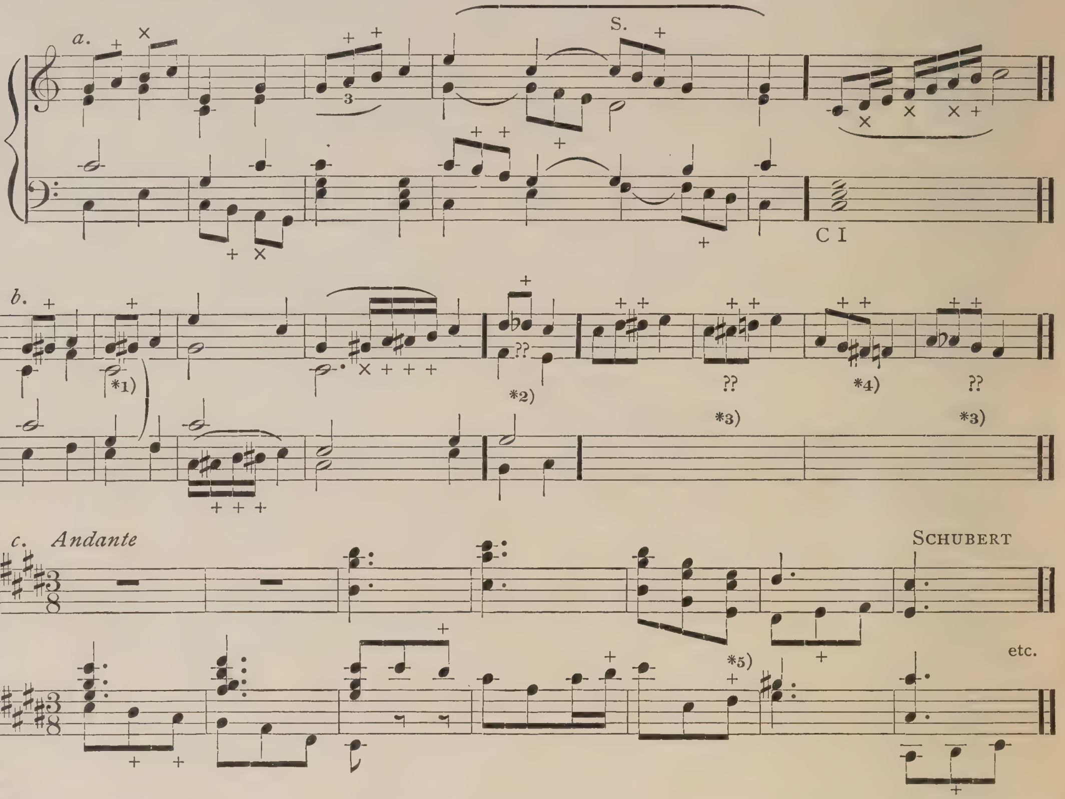


*1) The descending passing-note, when unaccented, often has the *appearance* of a chord-seventh. See Ex. 186, Note *3). — *2) The *accented* passing-note, from *below*, is occasionally subject to par. 399*b* (a half-step). Here *f*♯ sounds better than *f*♮. — *3) The descending passing-note, when *accented*, is often identical with the irregular suspension. See Ex. 297, Note *4).

401. *a.* The space between two harmonic intervals in the same part may be filled out in this manner diatonically, even when *two* intermediate passing-notes are required; that is, *passing-notes may occur in direct succession, in the same direction.*

b. **Chromatic** passing-notes are possible, to the extent of 3 or even 4; but they should be limited as much as possible to *ascending* progressions. *Descending* chromatics in rapid succession are peculiar, and appropriate only for brilliant effects. *This applies only to rapid successions. In slow tempo*, chromatics are effective in either direction.

Ex. 315.



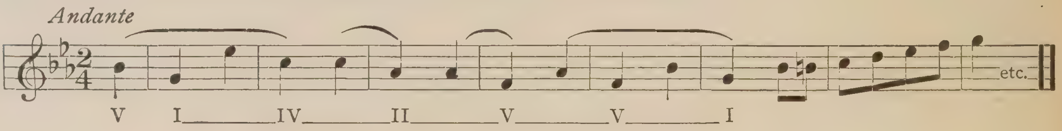
*1) The combination of a chord-tone and its chromatic inflection (as passing- or neighboring-note) is possible, as here. But it is just as well to avoid it, if convenient. — *2) Descending chromatic pass.-note. — *3) In such ornamenting groups as these, the *larger intervals come first in the group*, as a rule, — as in the preceding group. — *4) The *notation of chromatic tones* must conform to the principles of next-relationship (to the prevailing key), and will be found to coincide exactly with the *altered steps*. Therefore, not all ascending tones are written with sharps, nor all descending ones with flats. In this case *f*♯ is the only correct notation, irrespective of direction; *g*♭ would be absolutely wrong, as it is too foreign to the key (*G* or *C*). — *5) This might be a chord, — the $\overset{7}{\text{IV}}$ of *c*♯ minor.

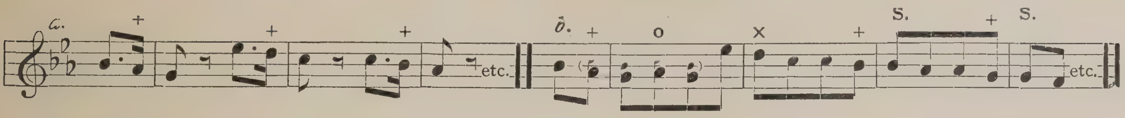
EMBELLISHED MELODY, AND RUNNING PARTS.

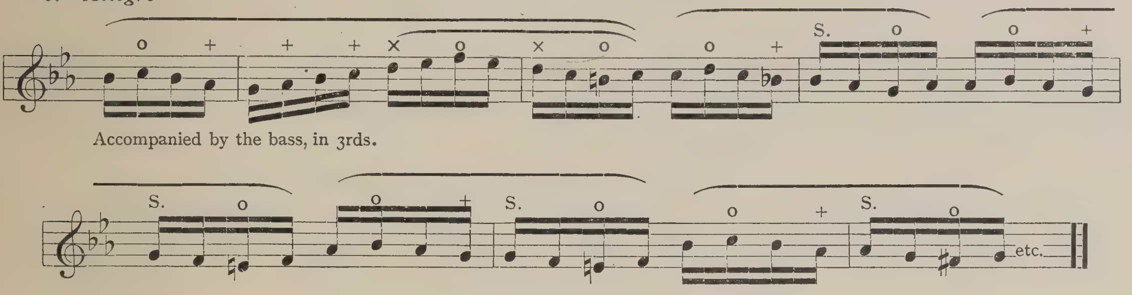
402. Neighboring- and passing-notes may be employed in embellishing *any single part*, in uniform rhythm, — as a so-called running part.

The following melody, and its embellishments, appears in op. 74 of **Beethoven:**

Ex. 316.





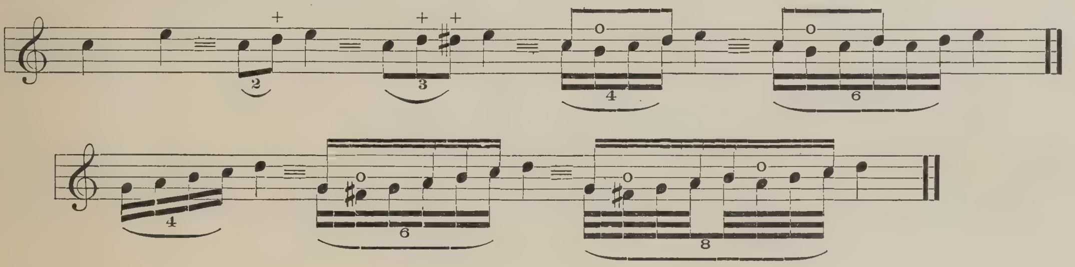


Accompanied by the bass, in 3rds.

Also **Beethoven,** Sonata op. 2, No. 2, last movement; compare measure 3 with measure 13 from the end.

403. Ampler forms of embellishment (*i.e.*, larger groups of notes, and in more rapid rhythm) usually develop out of the simplest original figures, by adding neighb.-notes. Thus:

Ex. 317.



FUNDAMENTAL PRINCIPLES.

One, or more, of the four adjoining tones of any harmonic interval may be used in connection with the latter, as simple neighboring-note, or as passing-note.

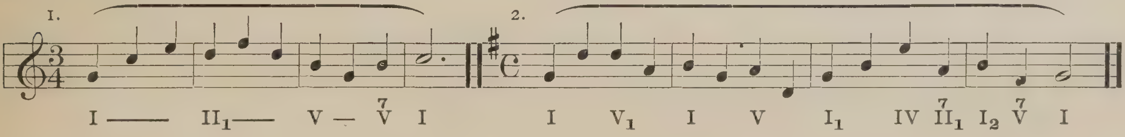
The *neighboring*-note enters from, and returns to, its principal tone.

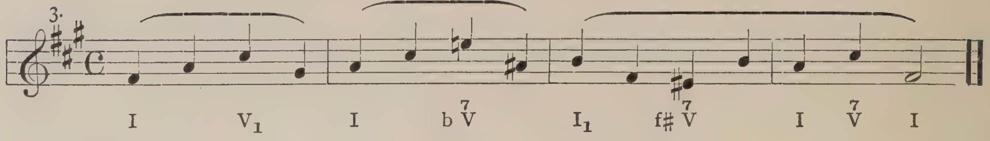
The *passing*-note, or notes, connects two different principal tones, diatonically, — more rarely chromatically.

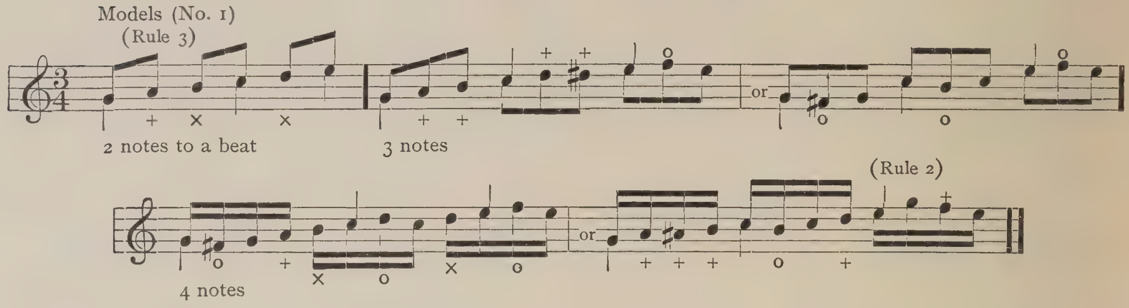
The upper neighbors, and all passing-notes, agree with the momentary scale. The lower neighbor is usually a half-step, excepting at the leading-tone.

EXERCISE SIXTY-FIVE.

A. The following melodies are to be embellished *alone*, in a *uniform rhythm* of 2, 3 and 4 notes to a beat, successively (see models, and rules below):







Rules: (1) The running rhythm must not be changed until the cadence-note is reached. The latter is *not* embellished.

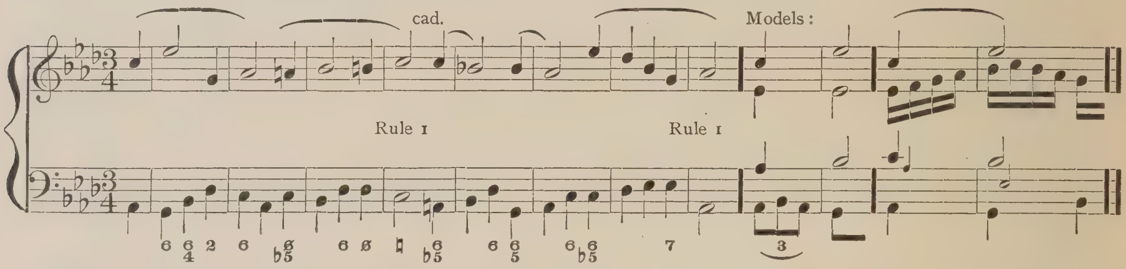
(2) The given melody may, *occasionally*, be modified by adding other principal tones of the momentary chord; especially an intermediate interval, when the skip is large.

(3) As a rule, the original location of the given melody-tones *in the measure* should be retained. But this is not always possible, and it is effective to place an *accented passing-note before the given tone*, — as in the above model, first measure, beats 2 and 3; 4th measure, beats 2 and 3. See also Ex. 314*b*.

(4) The embellished part must run smoothly; repeated tones, in quick succession, should be avoided.

(5) Play the given chords with the left hand. Review pars. 399, 401.

B. The following period is to be supplied, first, with a *running bass;* then with a *running alto;* then with *alternating* bass and tenor, or alto and tenor (in successive measures, — or whenever convenient). In each case in a continuous rhythm of first three, and then four, notes to each beat. See models, and rules below.



Rules: (1) The adopted rhythm must not be interrupted at the semi-cadence; and even at the perfect cadence it should continue for one beat past the final note in soprano.

(2) The inner parts may be first filled in, and then embellished (like the given bass); or the running rhythm may itself determine the principal tones, — at least partially. The given bass, and the chords, may be changed, if necessary.

(3) The compass of the parts, and their distance apart, is optional.

(4) The embellishing part must run smoothly (rule 4, above). *Sequences*, and general *uniformity of figures*, are extremely important in running parts.

See also: **Mendelssohn,** op. 54, Var. I; op. 82, Var. II. — **Beethoven,** op. 120, Var. 25. — **Cramer,** Études 41, 80, 16, 32 (original *complete* edition).

C. Construct a few **Original phrases,** with running parts.

EMBELLISHED HARMONY.

404. Instead of limiting the neighboring- and passing-notes to the embellishment of one *single* part, as above, they may be employed *in all of the parts, in alternation*, for the purpose of filling out the spaces between the harmonic intervals. This makes the harmonic impression smoother, creates a more animated rhythmic effect, and adds greatly to the melodic significance of the parts.

405. Hints and directions.

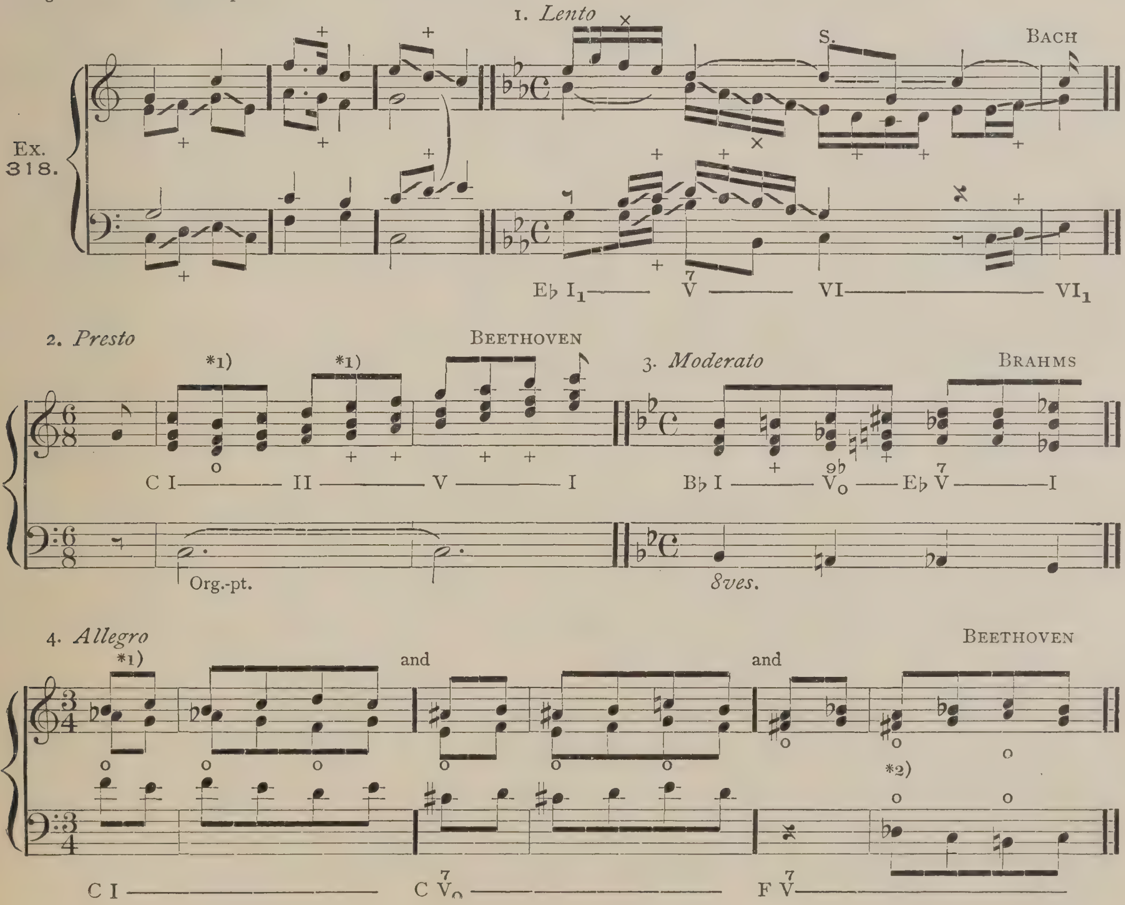
a. All embellishing notes progress **stepwise,** — *usually diatonically.*

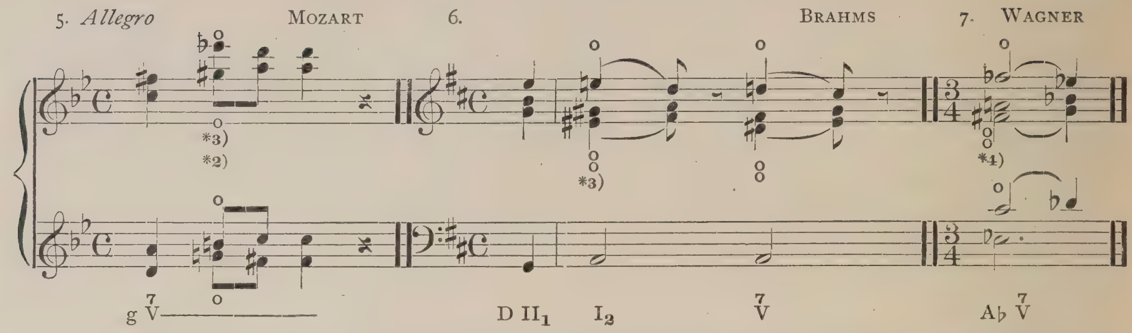
b. Unaccented passing-notes are almost everywhere good. *Accented* ones are apt to clash too harshly with the other parts; but they are often very effective, and should not be avoided. A test by ear is all that is required.

c. When embellishing tones occur simultaneously in two different parts (as they may), they should generally harmonize *with each other.* For this reason they are most likely to run *in parallel 3rds or 6ths* (comp. par. 66); or, if they move in opposite directions, they should meet (cross) on the same tone.

Inharmonic tones in three or four parts at once (which is possible, but rare) should represent *passing-chords*, or *neighboring-chords.* For example:

Ex. 318.


1. *Lento*
BACH
S.
E♭ I₁ — V⁷ — VI — VI₁
2. *Presto*
BEETHOVEN
*1)
*1)
C I — II — V — I
Org.-pt.
3. *Moderato*
BRAHMS
B♭ I — V⁹♭₀ — E♭ V⁷ — I
8ves.
4. *Allegro*
BEETHOVEN
*1)
and
and
*2)
C I — C V⁷₀ — F V⁷

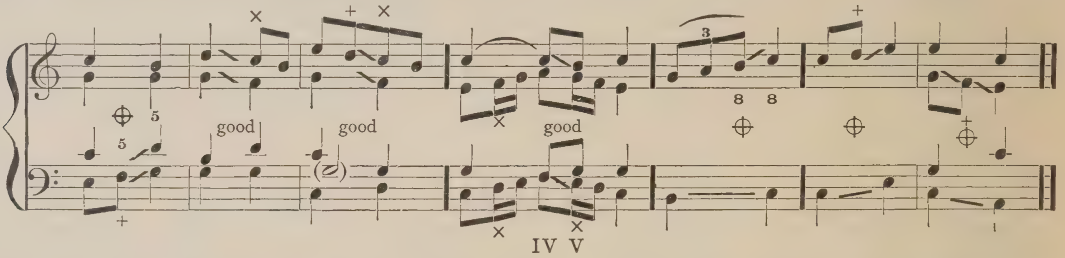


*1) In such *rapid tempo* these are simply neighb.- and passing-chords. — *2) These groups of neighb.-notes do not harmonize with each other *as chords*, but their identity is clear, and they sound effective. *With* **neighb.-notes,** *almost any combination is admissible,* — as will be seen. — *3) The "neighbors" are chromatically opposed to each other. — *4) Fourfold neighbors. See Ex. 217, No. 5, Notes *1) *2). See also: **Mendelssohn,** op. 83, Var. II. — **Bach,** "Well-tempered Clavichord," Book I, Prelude 22; "St. Matthew" Passion, Introduction.

d. Parallel fifths, which are likely to result from filling out the harmonic spaces with unessential notes in this manner, are *to be judged according to the quality of the* **second** *fifth.* If the second one of the two 5ths is harmonic and perfect, the parallels are wrong; but if *inharmonic* or imperfect, they need not be avoided. Ex. 294, Note *5), illustrates this principle.

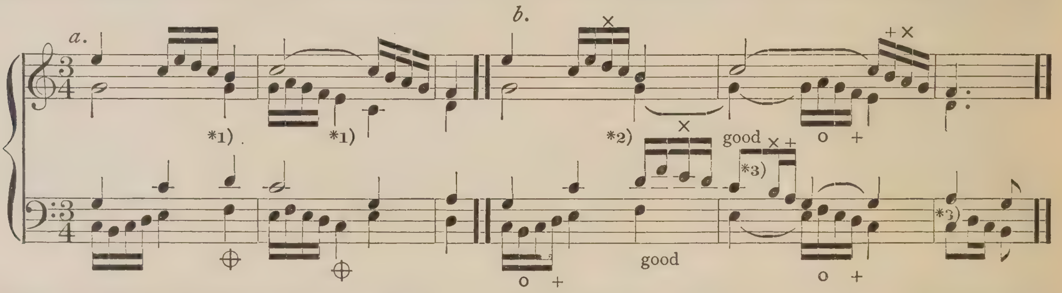
Parallel octaves, made in embellishing the harmony, are, on the contrary, *always* wrong. These rules are also applicable to parallel octaves and fifths which are *interrupted* by a passing-note. See also Ex. 120, Note *1). For example:

Ex. 319.



e. The rhythm which is adopted for the embellishment at the start, *must be carried along from part to part throughout the piece* (or section), with as few interruptions as possible. And when such interruptions are deemed necessary, they can take place only at the *accented beats,* and must be *slight.* Thus:

Ex. 320.

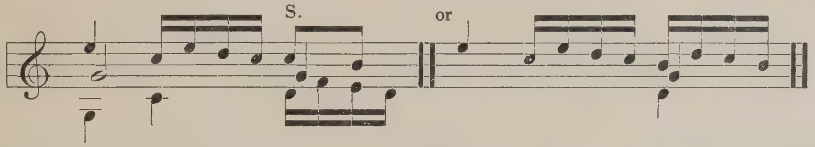


*1) These cessations of rhythm are wrong, as they occur at the *weak* beats, and are too positive (from 16ths to quarter-notes). — *2) Here the tenor part takes up the adopted rhythm. — *3) These interruptions are in the proper place, and are slight.

f. The rhythm of the *soprano,* as most conspicuous part, *should always be as regular as possible* (*i.e.,* the rapid notes should fall on the weaker beats).

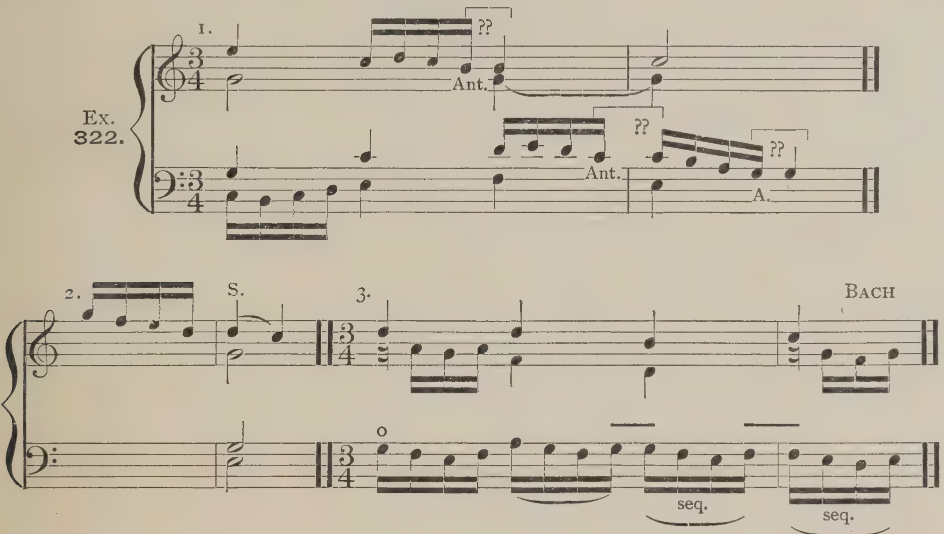
Therefore, the first measure of Ex. 320*b* would be better thus:

Ex. 321.



g. Regular anticipations, and *quick repetitions generally,* should be avoided, as they jar the movement. Repetitions, however, are usually good, no matter how abrupt, *when the second tone is a suspension* (Ex. 322–2), — and when they occur *in sequences* (Ex. 322–3). For example:

Ex. 322.

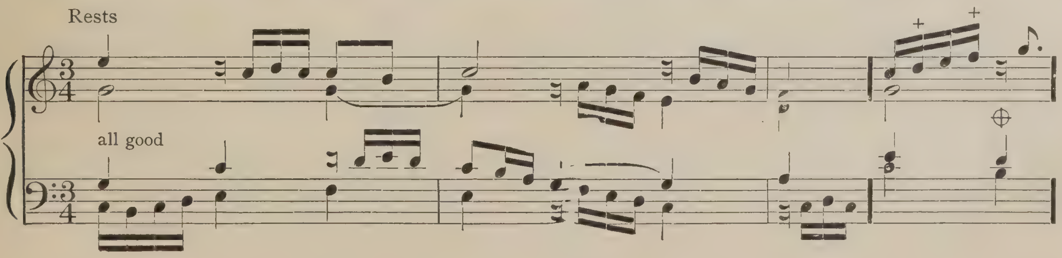


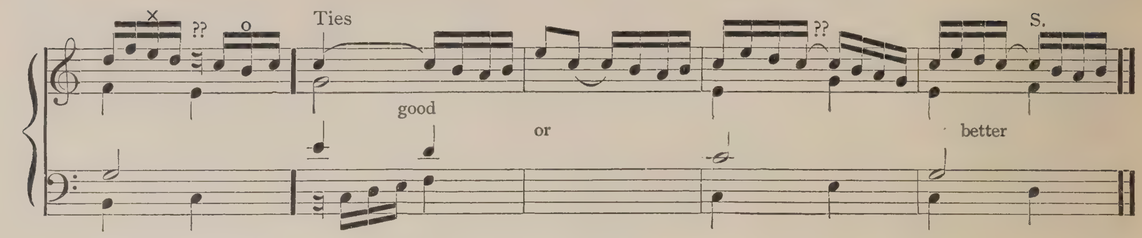
In other words, calculate the group of tones so that it will run into the next harm. interval *at precisely the right moment;* not *before* its time, as in Ex. 322–1.

h. Short rests constitute a very valuable resource of harmonic embellishment, and may be freely used. As a rule, a rest may be substituted for the *first stroke of any group,* excepting after an inharmonic note, or after a very short note.

Ties are still more valuable, but must be used with caution. The principal rule is, that it is unwise *to tie a short note;* in general it is best to tie nothing shorter than a beat, or a half-beat in moderate tempo. But exactly the same exceptions are valid as in 405*g,* — for quick repetitions. Thus:

Ex. 323.





i. The embellishment should not continue *in any one part too long*, but should pass from part to part; not in such regular intervals of time as to incur monotony, nor so irregularly as to destroy the rhythmic unity of the whole. It will usually be taken up in that part in which, 1st, the convenient "space" is found; and 2nd, where it conduces most to the melodic quality of the part. A glance at **Bach,** "Well-tempered Clavichord," Book I, Fugue 11 and Prelude 12; and Book II, Fugues 2 and 4, etc., will suffice to show how the parts generally alternate and reciprocate, in keeping up the adopted rhythm.

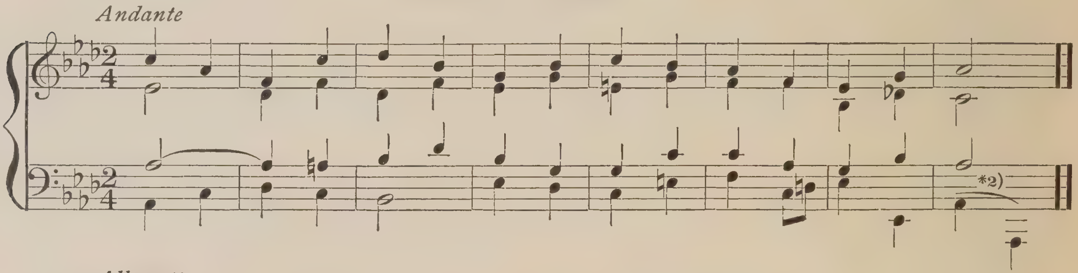
j. That, from time to time, *more than one part* may be engaged with the embellishment, has already been seen (Ex. 318); and particular attention is directed to the possibility of different parts embellishing simultaneously *in different rhythms* (for instance, in 8th- and 16th-notes).

N.B. The student will find very thorough illustration of this style of writing in the author's *Elementary Counterpoint*, Chap. 24.

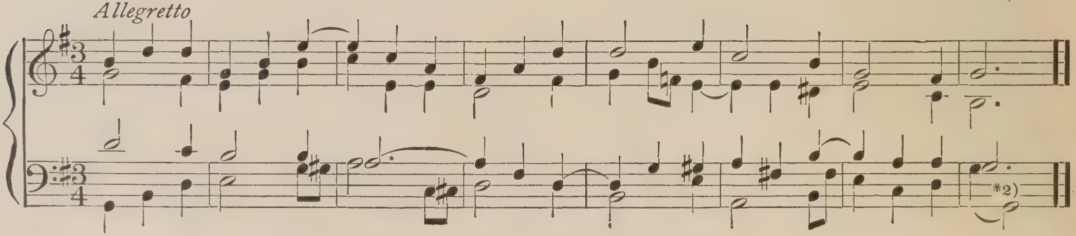
406. The most of these rules must be applied with discretion, for they are merely general principles, which are subject to modification in the multitude of changing conditions. The student who has mastered the laws of legitimate harmony, who has trained his ear to discriminate rationally between consonance and dissonance, and has made a conscientious study of the masterworks to which reference has been made, may now confidently trust his ear in detecting harsh passages. He is again warned of the utter futility of *working out his exercises at the piano*. The piano should be used, first, *while studying the given examples;* and, second, in *testing the effect of the written work, after it has been completed at the writing-desk* to the best of the student's ability.

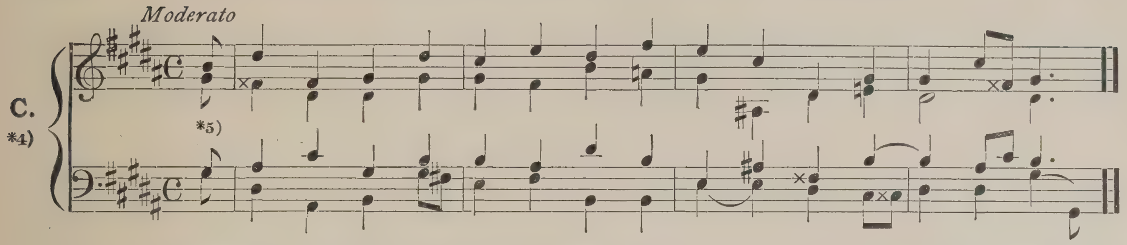
EXERCISE SIXTY-SIX.

A.
*1)



B.
*3)





*1) To be embellished three times, throughout, in *alternating parts*, in a continuous rhythm of first 2 notes, then 3, and then 4, to each beat. Ex. 320*b* will serve as a model for the 4-tone rhythm. — *2) The bass carries the adopted rhythm on into the second beat. — *3) Precisely like *A*. — *4) To be embellished twice, in rhythms of 3, and then 4, notes to each beat. — *5) This brief preliminary beat is not to be embellished.

Irregular Neighboring-notes. The Appoggiatura.

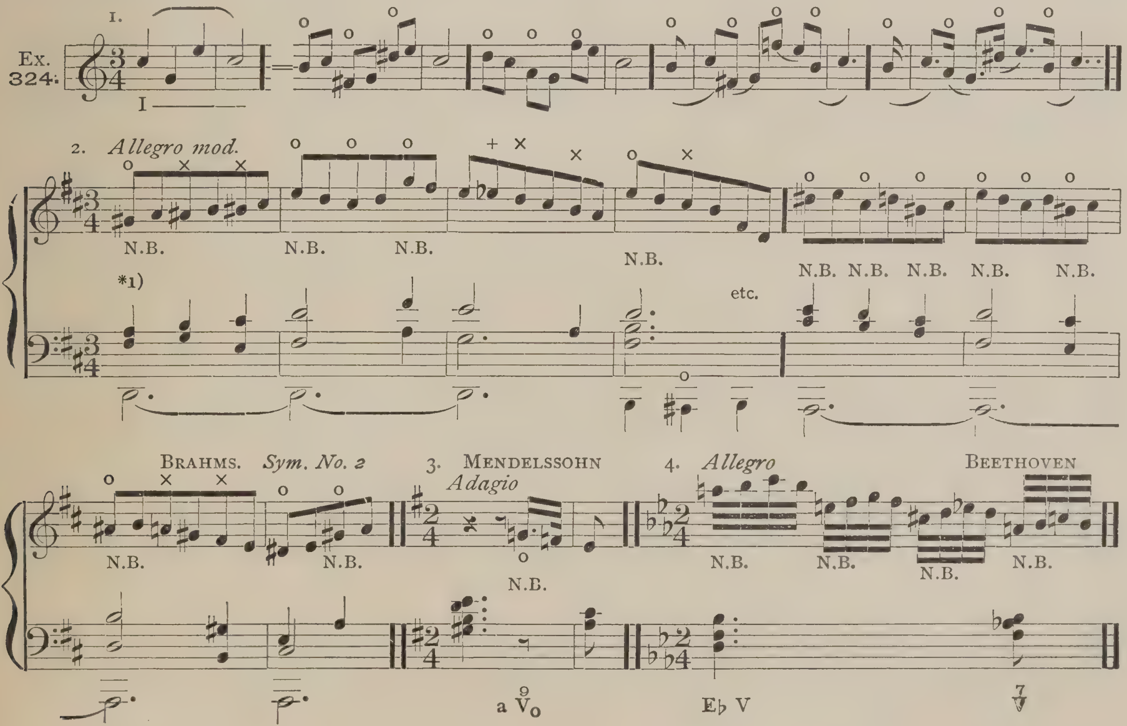
407. Either the upper or the lower neighb.-note may be simply *placed before* its principal tone, *without regard to what precedes* — either with a skip, or after a rest, or at the very beginning of the phrase, or in the strict diatonic manner already seen.

Because, similar to the anticipation, a neighb.-tone pertains *exclusively to its own* prin. tone, *into* which it must be resolved, but *from* which it is not obliged to enter.

408. *a.* When the neighb.-note enters with a *skip* it is called an **Appoggiatura** (or, if very brief, an *Acciaccatura*).

b. It may stand upon the strong fraction of *its own beat* (like the accented pass.-note), or upon the weak fraction of the *preceding beat*. For illustration:

Ex. 324.



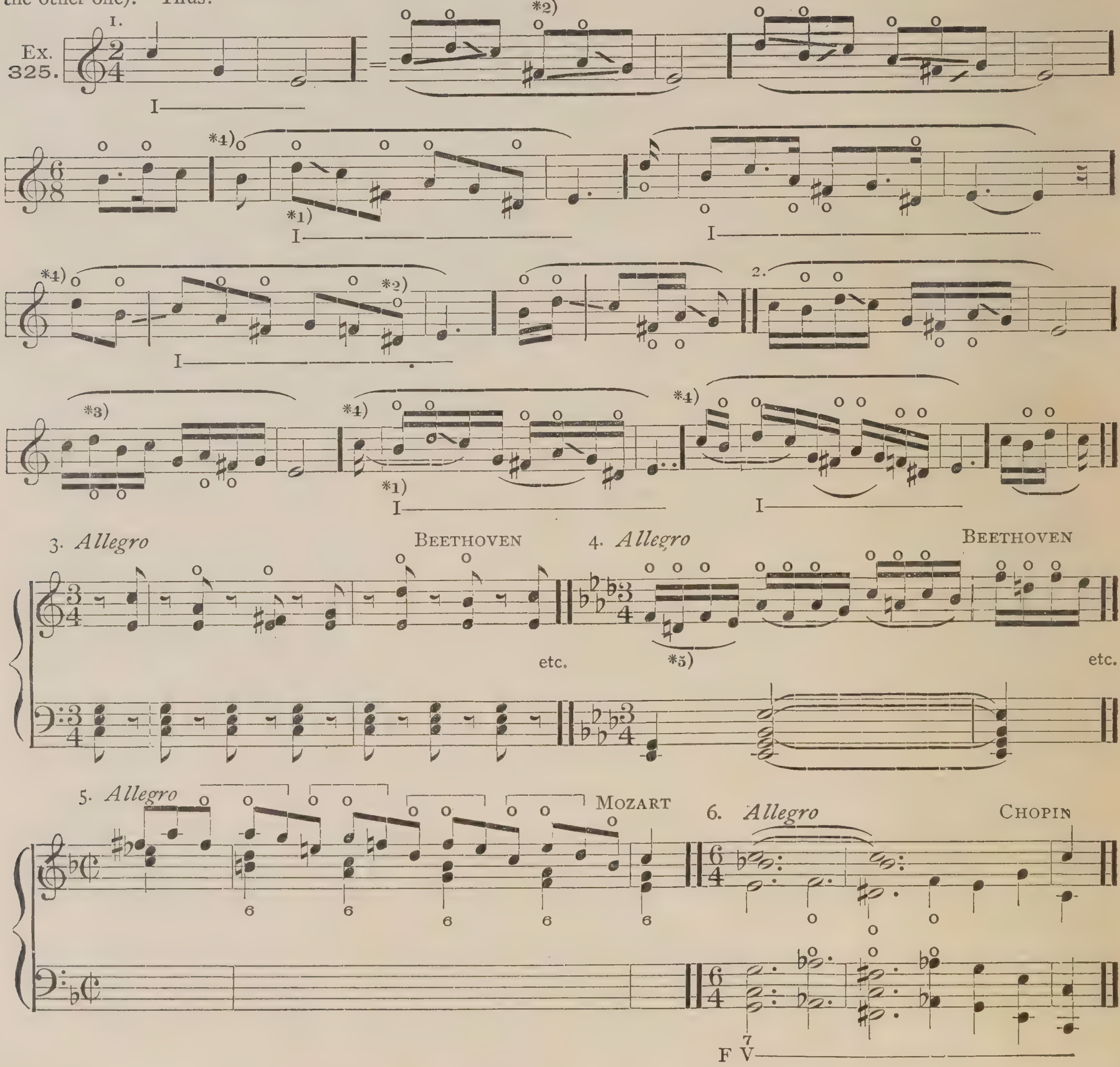
*1) At each beat marked N.B. the neighb.-tone enters with a skip. This whole passage from **Brahms** is a curious (and intentional) exception to the general rule that a sensitive tone should not be doubled in embellished form. The embellished melody is doubled in the tenor, in *intentional* octaves. — See also: **Beethoven,** Sonata op. 14, No. 2, first 4 measures; **Chopin,** Étude op. 25, No. 5, first section.

THE DOUBLE-NEIGHBOR.

409. *a.* Analogously, **both** neighb.-notes may be set before their prin. tone, in either order, and, as indicated in par. 408*b*, so that both occur *in the beat,* or both *before the beat,* or *one before* and the *other upon* the beat.

b. This is a double-appoggiatura, and the irregularity consists in the first neighb.-tone *progressing with a skip* (into the other one). Thus:

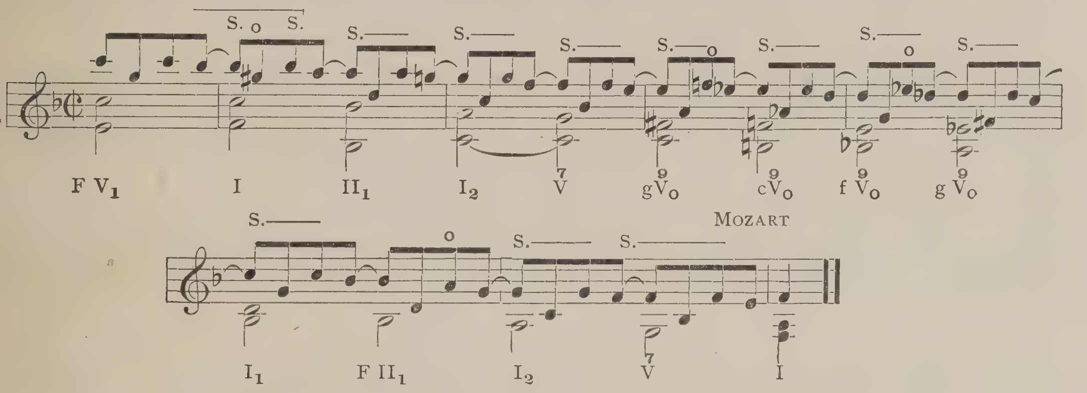
Ex. 325.


1.
I
*2)
*4)
*1)
I
2.
*3)
3. Allegro
BEETHOVEN
etc.
4. Allegro
BEETHOVEN
*5)
etc.
5. Allegro
MOZART
6
6. Allegro
CHOPIN
F V
7

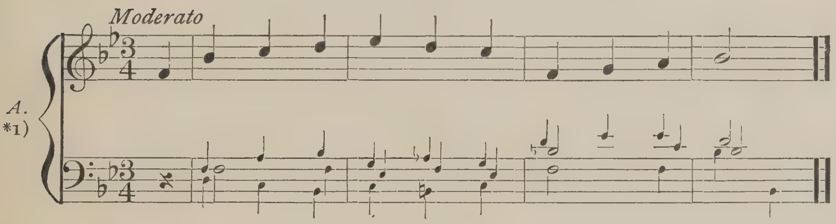
*1) Strike the I with the left hand, at each accent. — *2) Par. 399*b* must be respected in all cases. — *3) This order of tones is not as smooth as the preceding figures. The choice of upper or lower neighb.-tone, as defined in par. 399*a*, refers to the *last one in the group*. — *4) When the neighb.-tones are shifted back in this manner, it is simply an example of "oblique rhythm." — *5) In rare cases, the first neighb.-note returns, as here, before the prin. tone appears. — See also: **Weber,** "Rondo brillant" in *E♭* major.

410. This is a species of "deferred resolution" very often applied to suspensions (which are always "neighb.-tones"). This, and other interesting deferred resolutions, are exhibited in the following example. See par. 381*b*.

Ex. 326.

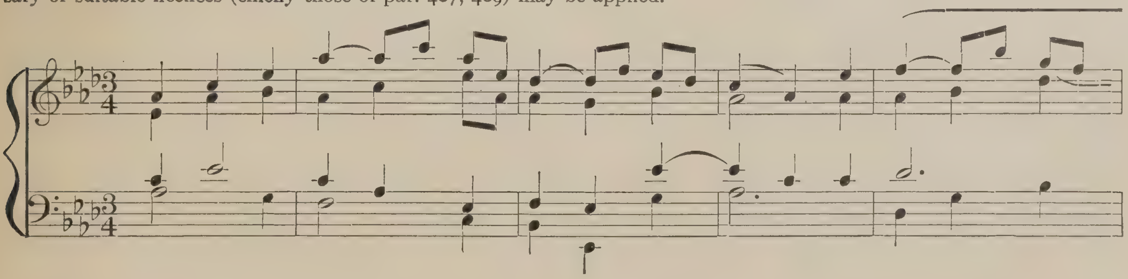


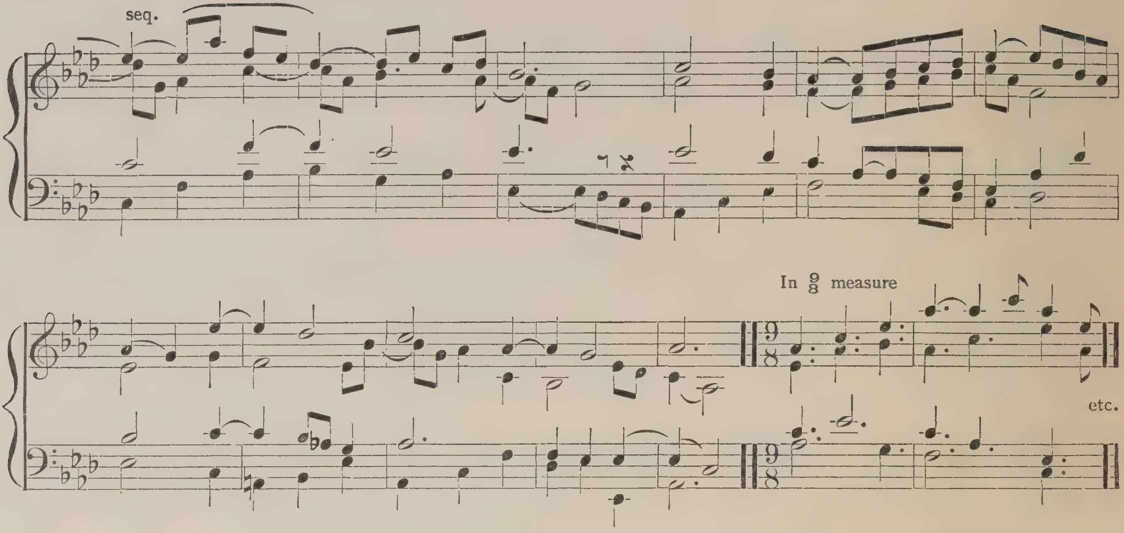
EXERCISE SIXTY-SEVEN.



*1) The *melody alone* of this phrase is to be embellished; first, in 8th-notes, as in Ex. 324–1; second, with 3 notes to a beat, as in Ex. 325–1; and third, with 4 notes as in Ex. 325–2, and Ex. 324–4. The harmony is placed in the left hand, for convenience. — Besides this, the student may take any *short* melodies of former exercises, and elaborate them in the same three ways.

B. The following period (an excerpt from the pianoforte works of *C* . . .) is to be embellished in *alternating parts*, as in the preceding exercise: first, with *4 notes* to each beat; and second, with *3 notes* to a beat (as $\frac{9}{8}$ measure). Any necessary or suitable licences (chiefly those of par. 407, 409) may be applied.





C. To this exercise may be added a similar elaboration of some former simple phrases and periods, either original, or given in Parts II and III. Or the student may write a number of **Original phrases,** with direct application of the given material.

Harmonic Embellishment (continued).

411. The employment of passing-notes and suspensions, in embellishing the harmony in alternating parts, may become more elaborate and significant by adopting a *small melodic figure* as "motive." This imparts that equality and melodic uniformity to the several parts which is a distinctive trait of the so-called polyphonic (or contrapuntal) style.

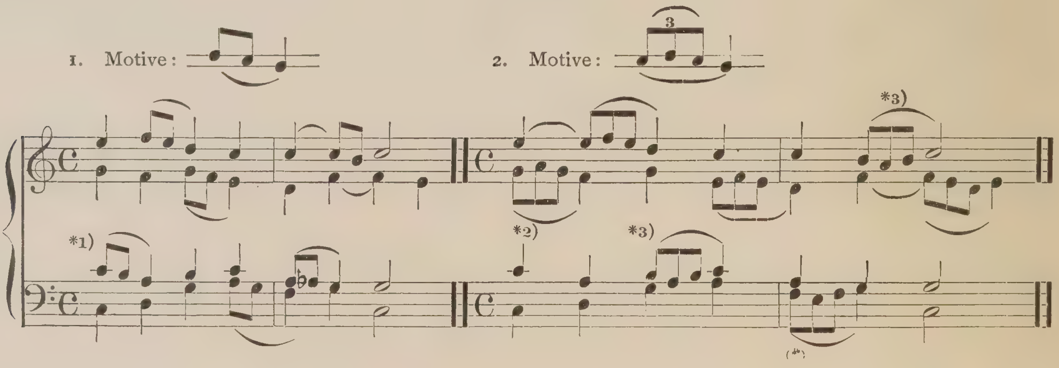
412. Polyphony is the highest grade of musical technique, and demands great skill in the treatment of musical material. Hence its practice by comparative beginners is out of the question. Nevertheless, a harmonic phrase, embellished with an adopted motive, approaches the idea and resembles the effect of the contrapuntal process, and is well worth the student's attention at this point.

413. Thus, any succession of simple chords, — for example:

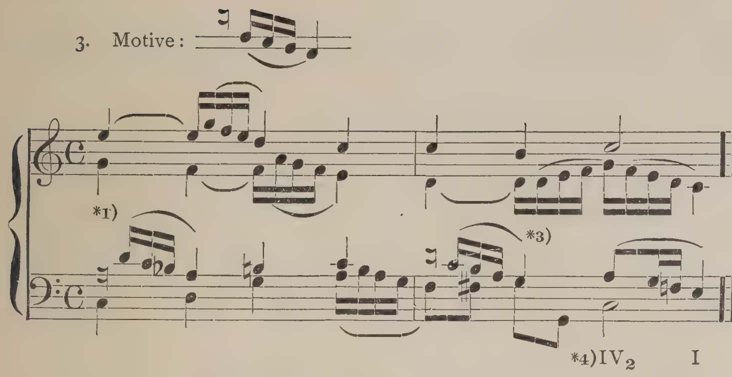
$$\tfrac{4}{4}\ \mathrm{I—II—V—VI}\ |\ \overset{7}{\mathrm{II}}—\overset{7}{\mathrm{V}}—\mathrm{I}\ \|$$

may be embellished in many ways, with a variety of motives, as follows:

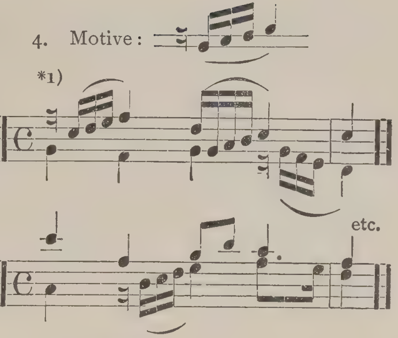
Ex. 327.



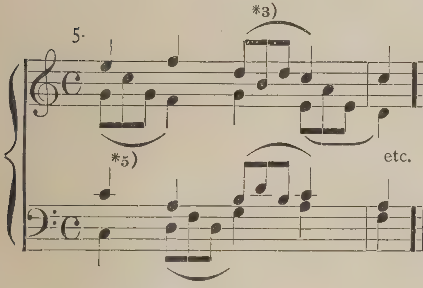
3. Motive:



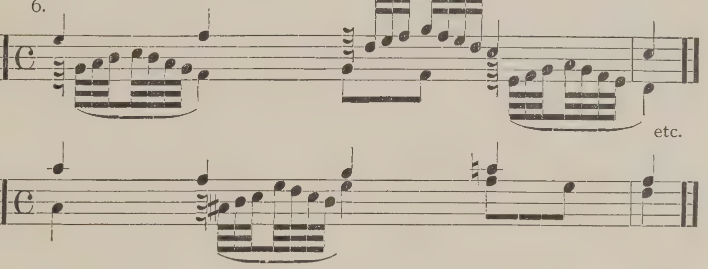
4. Motive:



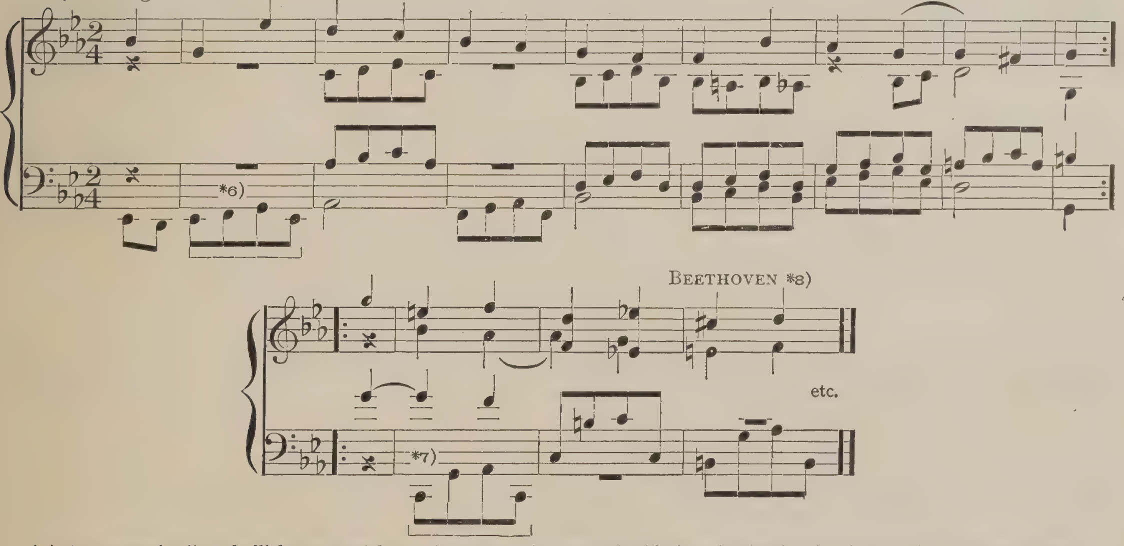
5.



6.



7. *Allegretto*



---

*1) "Progressive" embellishment, with passing-notes, is more dignified and effective in this semi-polyphonic style. — *2) "Local" embellishment, on the contrary, while necessary at times, does not contribute to the life and melodic significance of the parts, as the "progressive" does. — *3) The *direction* of the motive may be reversed, as here, at any point. It is called *imitation in contrary motion*, and is always valid. — *4) A slight change of the given harmony, for the sake of the motive. — *5) A "harmonic" motive, obtained by merely breaking the chord. It becomes the basis of the ampler motive in No. 6, — after the manner of par. 403. — *6) Motive. — *7) Motive. — *8) Op. 74; same as Ex. 316.

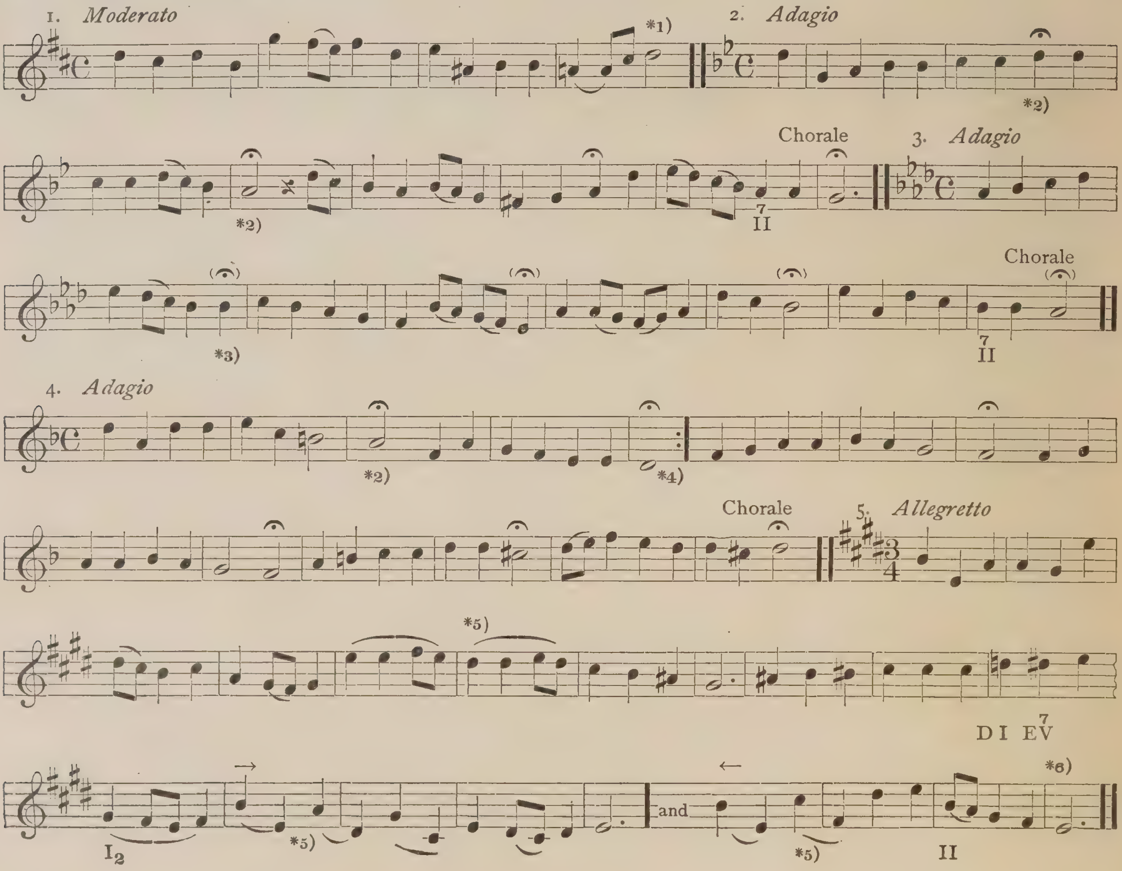
For further illustration of this style of contrapuntal embellishment, see **Beethoven,** op. 120, Variations 11, 14. — **Mendelssohn,** op. 54, Variation 2; op. 83, Var. 2. — **Bach,** Well-tempered Clavichord, Book I, Preludes 12, 22, 23; Book II, Preludes 5, 11, 19.

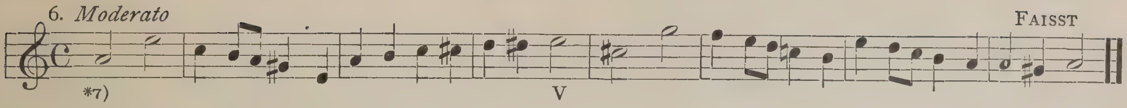
In working out the following exercise, the pupil is to use moderately simple chords (and next-related modulations), and then embellish this harmony in a continuous rhythm of *two notes to each beat,* in alternating parts as usual. It is by no means necessary that a motive be adopted, as in Ex. 327, although he may experiment in that fashion; the chief object is, *to impart to each voice a definite melodic character,* — to make each part a significant line in the design (par. 7).

Before harmonizing the given chorale melodies, the pupil will do well to make a very careful study of the chorale harmonizations of **Bach** (to be found in Vol. VI of his organ music, Schirmer edition (edited by Widor and Schweitzer), or Vol. V of the Peters edition; and in the chorale numbers in his "St. Matthew" Passion). See also **Mendelssohn,** "St. Paul," No. 3, No. 16.

EXERCISE SIXTY-EIGHT.

Rules: (1) Review par. 405*a*, *c*, *h*, and 407. — (2) The given melody is not to be changed, as a rule, but an *occasional* suspension or passing-note may be introduced in the soprano. — (3) The embellishment may be added *after* the chords have been found; or the harmony may be determined *at once* in its embellished form. — (4) The use of **regular suspensions** (with ties), and of **ties generally,** is commended.




6. Moderato
FAISST
*7)
V

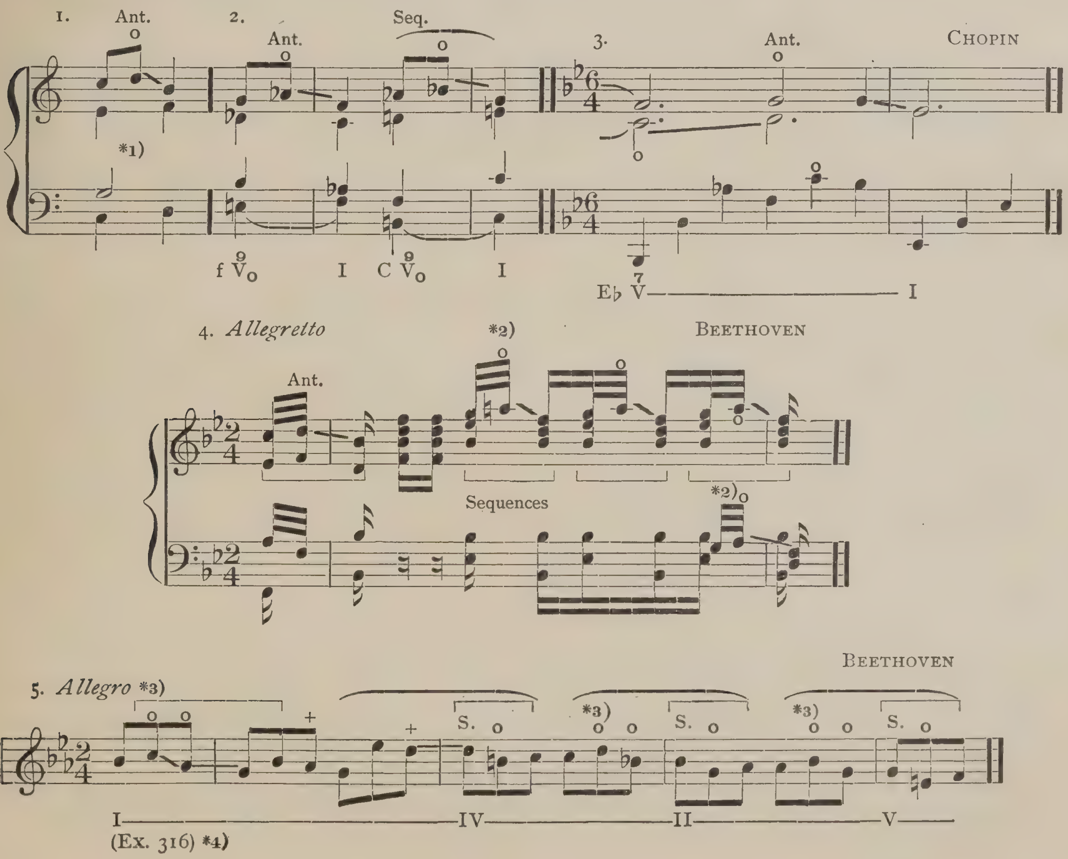
*1) Besides this melody, add the similar manipulation of some of the melodies given in Exercises 16, 17, 22, 55, and others. — *2) The end of each line (marked 𝄐) must be a strong *triad*, and the rhythm is interrupted. — *3) The pauses (𝄐) in this chorale are to be ignored. — *4) The repetition must be written out, with different harmony. — *5) Sequences should be treated as symmetrically as possible. — *6) In this and the following melody the student may work with the utmost freedom, and depend somewhat upon his ear. — *7) This last melody may be elaborated in several different ways (but only in 8th-notes).

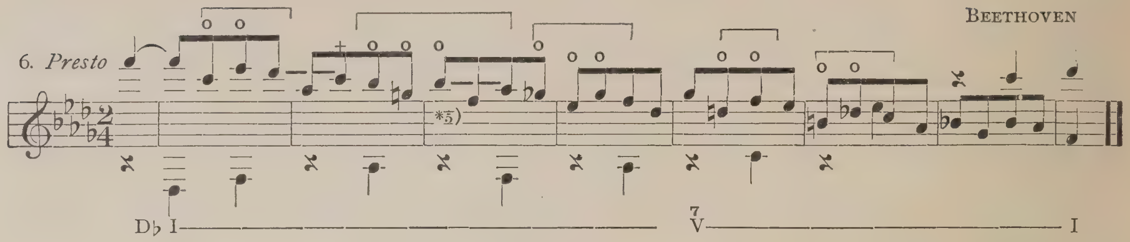
Other Licences.

414. The **upper** neighbor may evade its resolution by *leaping down a third*, — not only in passing to the opposite neighbor (Ex. 325, No. 3), but in any case, without ultimate return to its principal tone.

The chief excuse for this is, that the upper neighbor is so frequently an anticipation of the following chord (as in Ex. 309). Another justification would be its occurrence in sequential figures. For example:

Ex. 328.

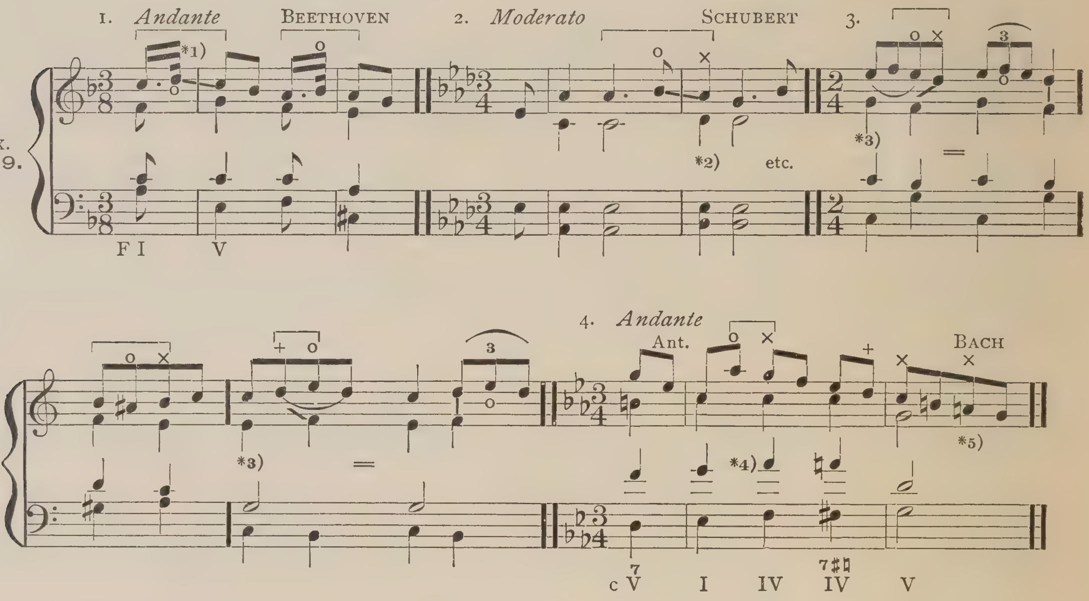

1.
Ant.
o
*1)
2.
Ant.
o
Seq.
o
f V_0^9
I
C V_0^9
I
3.
Ant.
o
o
o
CHOPIN
E♭ V^7 — I
4. Allegretto
*2)
o
o
BEETHOVEN
Ant.
Sequences
*2) o
5. Allegro *3)
o o
+
+
S. o
*3)
o o
S. o
*3)
o o
S. o
BEETHOVEN
I — IV — II — V —
(Ex. 316) *4)



*1) The *d* in soprano is the upper neighbor of *c*, and leaps down a 3rd; but it is also explainable as an irregular anticipation of the *d* in bass on the next beat. — *2) These unresolved upper neighbors are sequences of the preceding anticipation *d*. — *3) In each of these cases the upper neighbor leaps down a 3rd *into the lower neighbor*, — but their common principal tone does not follow. — *4) Compare this with Ex. 316, from which it is derived. — *5) These unusual sequences are imaginable only in such rapid tempo. — See also, **Beethoven,** Sonata op. 31, No. 3, first movement, measures 10–9 *from the end.*

415. During the *regular* local embellishment of a chord-tone, the other parts may make a progression into a *new chord*, so that the prin. tone in the meantime changes its harmonic quality, or becomes *itself inharmonic* (comp. par. 378). Thus:

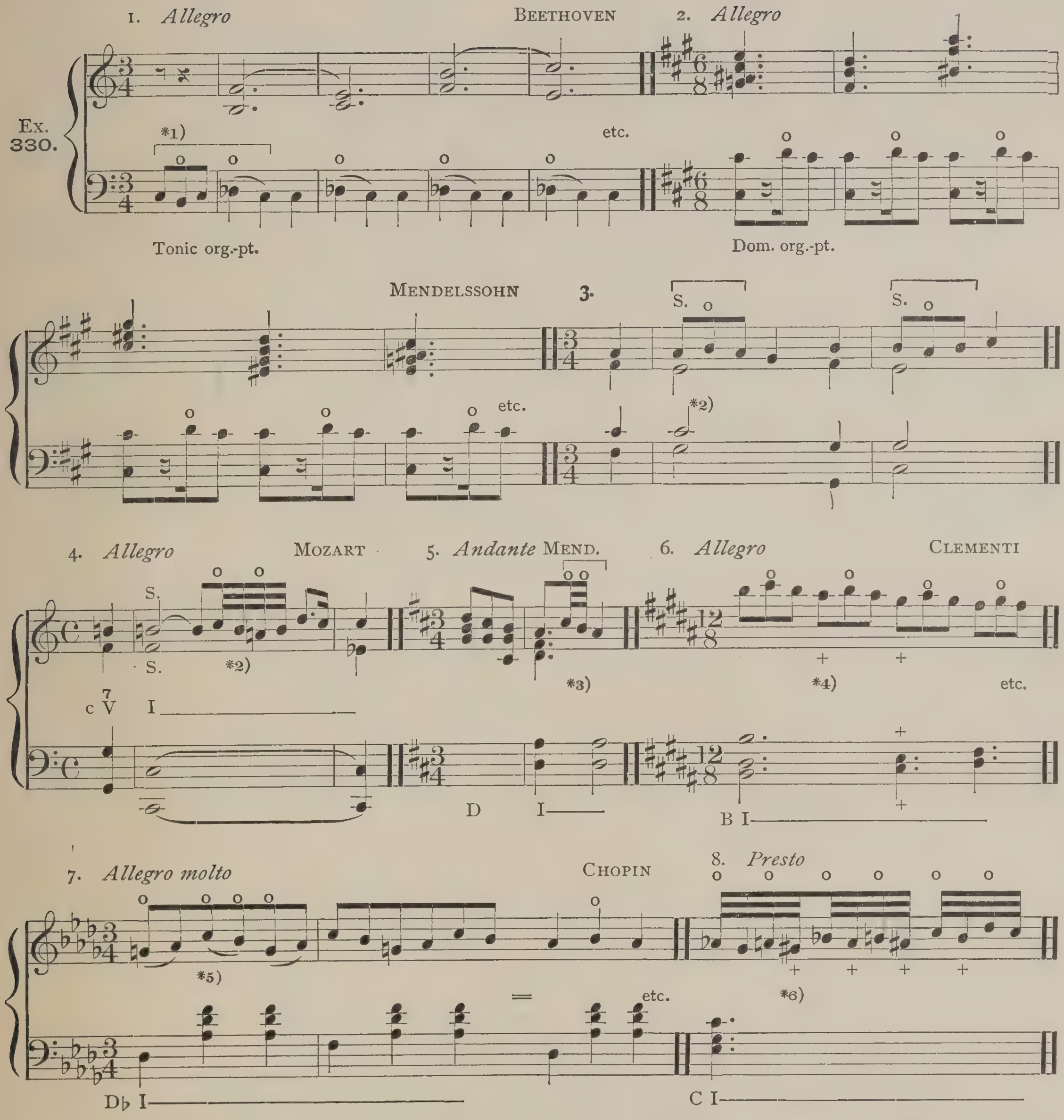
Ex. 329.



*1) *During its embellishment*, the tone *c* in soprano changes its quality from fifth to root. — *2) The prin. tone *a♭* becomes, upon its reappearance, an accented passing-note. — *3) These measures prove that this irregularity is but one of the many phases of **"oblique rhythm."** — *4) Like Note *2). — *5) This descending 6th step has to appear in its *raised* form (contrary to par. 279), because the 7th step was not altered. See par. 400*c*, of which this is a good illustration; observe that the "prevailing scale" *on this beat* is that of G major, — that is, it is the "*G*-major chord," as V of *c*.

416. The neighboring-note is such a simple factor of embellishment, and its application is so comprehensive and easy, that it may even be employed in *ornamenting certain inharmonic tones*, — when the latter are obviously legitimate, and *sufficiently prominent* to carry the embellishment without losing their identity. This is frequently applied to an organ-point. For example:

Ex. 330.

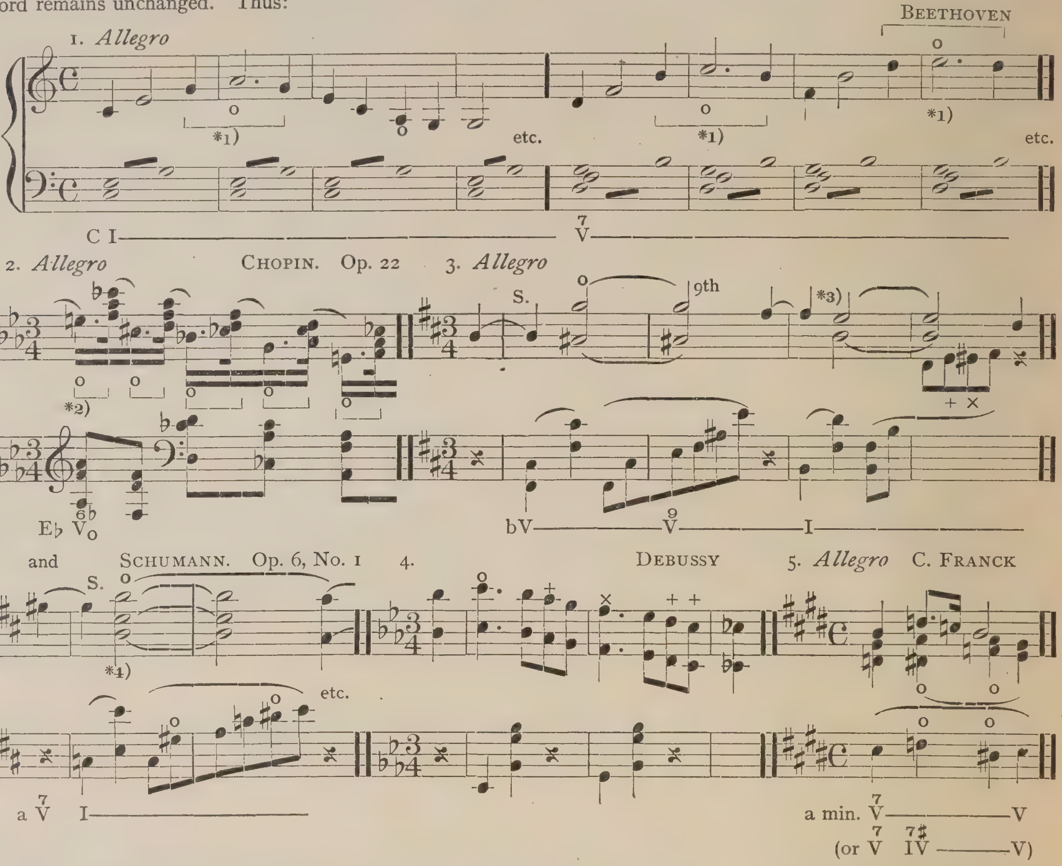

1. *Allegro*
BEETHOVEN
*1)
etc.
Tonic org.-pt.
2. *Allegro*
Dom. org.-pt.
MENDELSSOHN
etc.
3.
S.
*2)
4. *Allegro*
MOZART
S.
*2)
c V 7 I
5. *Andante* MEND.
*3)
D I
6. *Allegro*
CLEMENTI
*4)
etc.
B I
7. *Allegro molto*
CHOPIN
*5)
etc.
D♭ I
8. *Presto*
*6)
C I

*1) An embellished tonic org.-pt. The upper neighbor is, curiously, a half-step (representing the lowered 2nd step of the scale). — *2) An embellished suspension. — *3) The upper neighbor is embellished (very quickly) with *its* upper neighbor. — *4) Embellished diatonic passing-notes. — *5) Like Note *3). — *6) Embellished chromatic passing-notes.

See also: **Beethoven,** Sonata op. 14, No. 2, 1st movement, measures 15 and 17; Sonata op. 101, last 15 measures. — **Mendelssohn,** S. w. W. No. 35, Introduction (tenor); No. 45, last 12 measures (org.-pt. in bass). — **Schumann,** Symphony No. 3, third movement, measures 11–5 from the end. — **Beethoven,** Symphony No. 4, 3rd mov't, Trio, measures 50–59.

417. Under normal conditions, a neighboring-note is brief, — not longer than the tone it embellishes. Sometimes, however, unusual prominence (length) is given to the inharmonic tone. This is extremely effective, and safe as long as the chord remains unchanged. Thus:

Ex. 331.

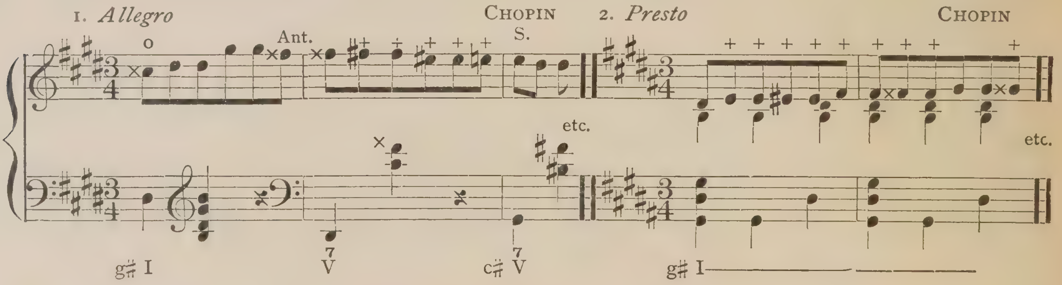

BEETHOVEN
1. *Allegro*
*1)
*1)
*1)
etc.
etc.
C I
7
V
2. *Allegro*
CHOPIN. Op. 22
*2)
E♭ V
6♭
o
3. *Allegro*
S.
9th
*3)
+ ×
bV
9
V
I
and
SCHUMANN. Op. 6, No. 1
S.
*4)
etc.
7
a V
I
4.
DEBUSSY
× + +
5. *Allegro*
C. FRANCK
7
a min. V——V
7 7♯
(or V IV ——V)

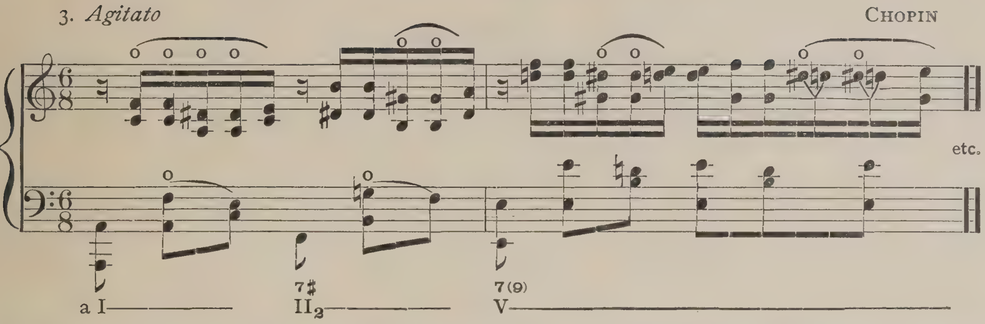
*1) These neighb.-notes are accented, and much heavier than their prin. tones. — *2) The dim.-seventh of *E*♭ major (*d-f-a*♭*-c*♭), with proportionately heavier appoggiaturas on each 8th-note. — *3) A long, heavy passing-note between *f*♯ and *d*. — *4) A similar heavy neighb.-note of *a*.

See **Beethoven,** op. 120, Variation No. 1 (bass). — Quartet op. 18, No. 2, last 8 measures of the "Trio" (3rd mov't), in the bass. — Also, op. 120, Variations 12, 28 (neighboring-chords), 8, 9, 27. — Also Ex. 350*b*!

418. Passing-notes, and also neighboring-notes, may be repeated. For example:

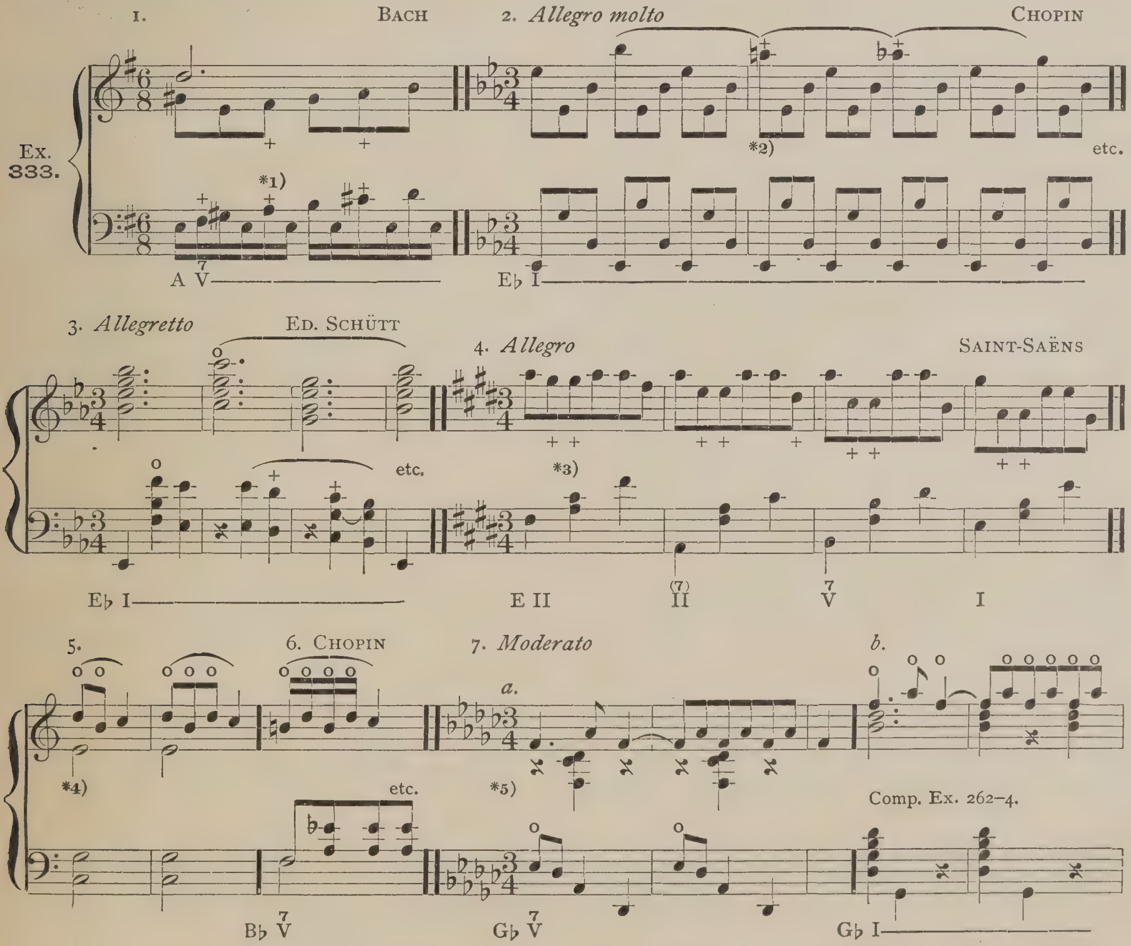
Ex. 332.

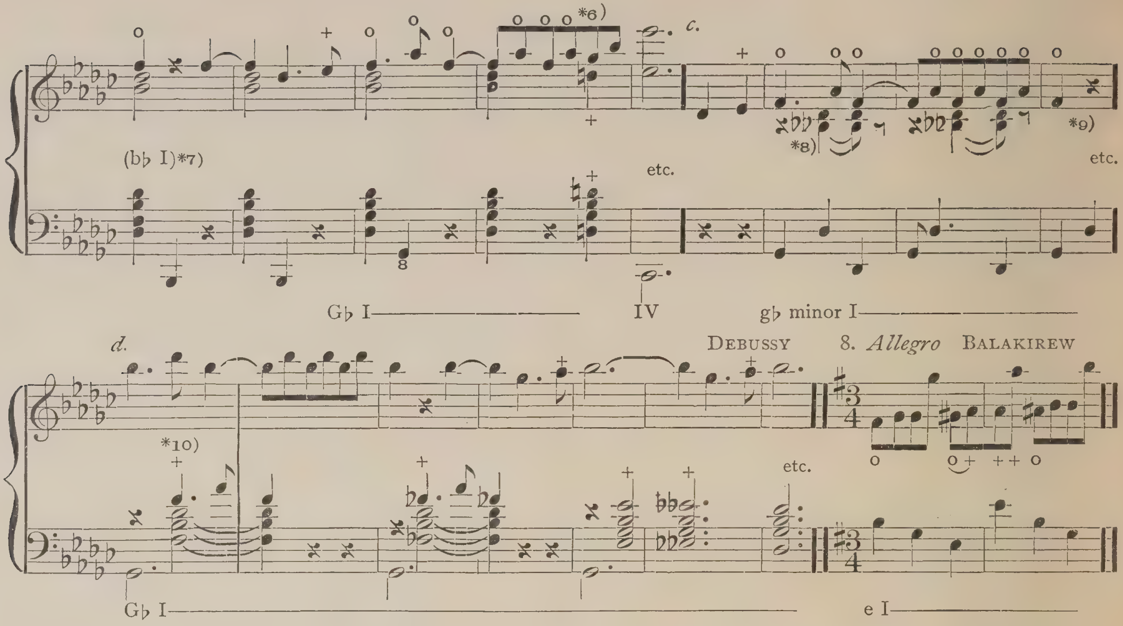

1. *Allegro*
Ant.
CHOPIN
S.
etc.
g♯ I
7
V
7
c♯ V
2. *Presto*
CHOPIN
+ + + + + + + + +
etc.
g♯ I——


3. Agitato
Chopin
etc.
a I
7♯ II2
7(9) V

419. The most unique effects are produced by *intercepting, or deferring the resolution* of a neighboring-note or passing-note, similar to previous examples (Ex. 156, Ex. 296, Ex. 326). Usually only *harmonic* intervals intervene, but it is even possible to interpose other inharmonic tones; and the resolution may be deferred as long as it is possible to retain the correct chord-impression firmly. For example:

Ex. 333.


1.
Bach
*1)
A V7
2. Allegro molto
Chopin
*2)
etc.
E♭ I
3. Allegretto
Ed. Schütt
etc.
E♭ I
4. Allegro
Saint-Saëns
*3)
E II
(7) II
7 V
I
5.
*4)
6. Chopin
etc.
B♭ V7
7. Moderato
a.
*5)
G♭ V7
b.
Comp. Ex. 262–4.
G♭ I



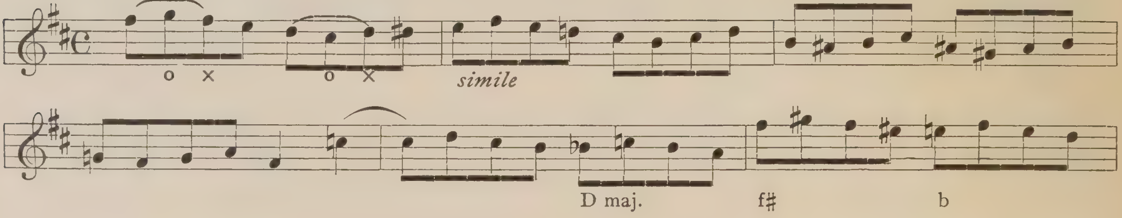
*1) The passing-notes *a* (and *c♯*) are intercepted briefly by the *e* below. — *2) The uppermost tones are intercepted passing-notes. The example is from **Chopin,** Prelude op. 28, No. 19, which abounds in similar interceptions. — *3) Repeated and intercepted. — *4) The simple *double-neighbor;* in the next measure increased to three tones (as seen in Ex. 325, No. 4); and, in the next, to *four* tones.

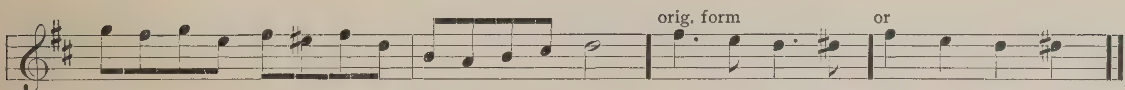
*5) In this extraordinary example of **Debussy** ("*La plus que lente*") the melody-tones *f* and *a♭* change their complexion with wonderful effect. They are given here not in the same order as in the original, but in a manner which exhibits their progressive changes. At first (at *7a*) as *harmonic* tones; then (at *7b*) as double-neighbor, with extreme repetition, — up to Note *6), where they finally resolve into their principal tone *g♭*. — *7) It is of course possible to regard this as a "chord" (the I of *b♭*); but it is more rational analysis to call it *still the I of G♭*, with the *f* everywhere as lower neighbor. — *8) The *b♭♭* makes it *g♭ minor*. It is possible, however, that it is *a♮*, as lower neighbor of *b♭* (which ultimately follows), in which case the *major mode* is maintained. — *9) This continues 4 measures and resolves exactly as at Note *6). — *10) The *f* is the first of a line of passing-notes, doubled in the lower octave, and resolving on the final *d♭*. It appears to enter without preparation, but it comes from *g♭*, which is amply "understood," as root of the chord.

These licences are more common in modern than in older music. They do not defy analysis, and are therefore perfectly legitimate. They represent merely *a more free and extended application of the simple principles of embellishment* known to earlier masters, but used by them with greater caution and moderation. See par. 426.

EXERCISE SIXTY-NINE.

A. The following melody is to be harmonized according to par. 415.





Use four chords in each measure, in uniform quarter-notes. The 3rd note of each group may be a passing-note, or may be harmonic; but in either case the *chord* must change. See Ex. 329, No. 3.

B. **Original phrases,** with application of the various licences given above.

THE HARMONIZING OF EMBELLISHED MELODIES AND BASSES.

420. When a florid (embellished) melody is to be harmonized, it is first necessary to reduce it to its original simple harmonic tones by setting aside all such brief ornamental tones as are certainly, or apparently, unessential notes. The melodic outline thus obtained may then be harmonized more or less simply, according to the character and tempo of the melody. The more animated and ornate the melody is, the more smooth and *quiet* should its harmonic accompaniment be.

421. In reducing a florid melody to its simplest elements, the following points must be borne in mind:

a. Every note which *progresses with a skip* is almost certain to be harmonic. (See par. 405*a;* but comp. Ex. 296, Ex. 309, Ex. 325, Ex. 328.)

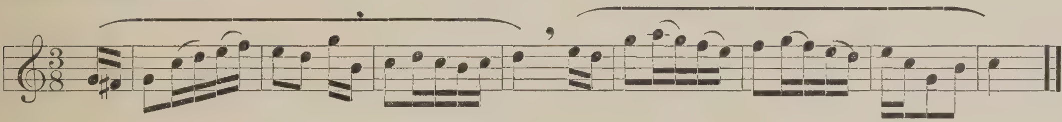
b. Notes with *accidentals* will be inharmonic, excepting when they are unmistakable indications of a *legitimate and natural* modulation.

c. The *longer* notes are likely to be harmonic.

d. The natural order (and rhythm) of the chords, and the fundamental principles of modulation, define the nature of most of the notes, especially those which occupy *accented* beats.

The following melody, for example:

Ex. 334.

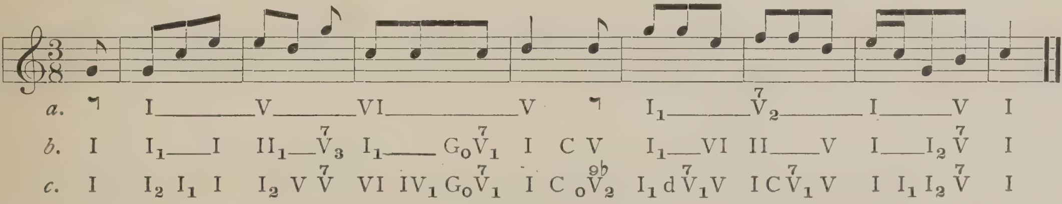


reduced according to these principles, becomes as in Ex. 335.

422. The **tempo** of the melody is a consideration of such moment, that it will usually precede all others in defining the *order* and *rhythm* of the accompanying chords.

For the more rapidly a melody moves, the more emb.-tones it is naturally likely to embrace, and *vice versa.* Comp. par. 169. The foregoing melody would be harmonized about as follows, in different grades of tempo:

Ex. 335.


a. 𝄾 I——V——VI——V 𝄾 I₁——V⁷₂——I——V I
b. I I₁—I II₁—V⁷₃ I₁— G₀V⁷₁ I C V I₁—VI II—V I—I₂V⁷ I
c. I I₂ I₁ I I₂ V V⁷ VI IV₁ G₀V⁷₁ I C ₀V⁹♭₂ I₁ d V⁷₁V I C V⁷₁ V I I₁ I₂ V⁷ I

At *a. Allegro vivace*, an average of one chord to 2 or 3 beats of the melody;

at *b. Allegretto*, one chord to 1 or 2 beats of the melody;

at *c. Andante*, one chord to each beat, on an average.

And finally, if the tempo were *Largo* or *Adagio*, the original melody would not be regarded as "florid" at all, but each single tone, as *essential* constituent of the harmony, would demand its own chord.

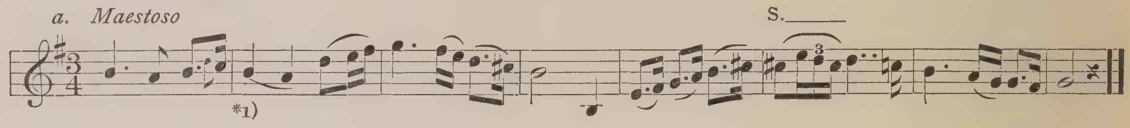
---

423. Florid basses are easier to reduce to their simple harmonic groundwork than florid melodies, because their construction is generally more regular, the *accented* notes are almost invariably *harmonic*, and they suggest their harmony more than melodies do. See Ex. 196*B*.

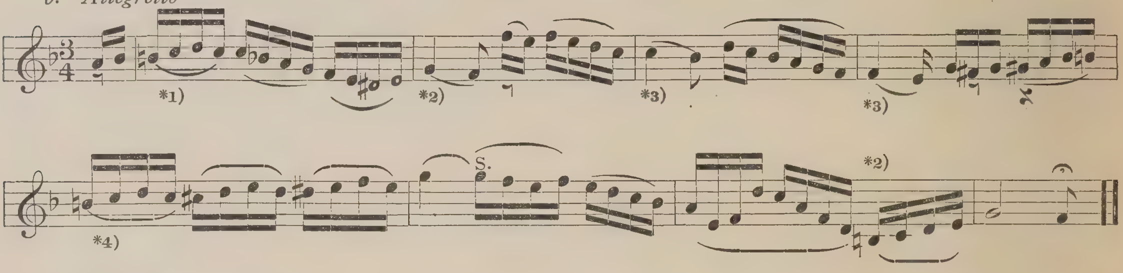
EXERCISE SEVENTY.

A. **Florid melodies.**

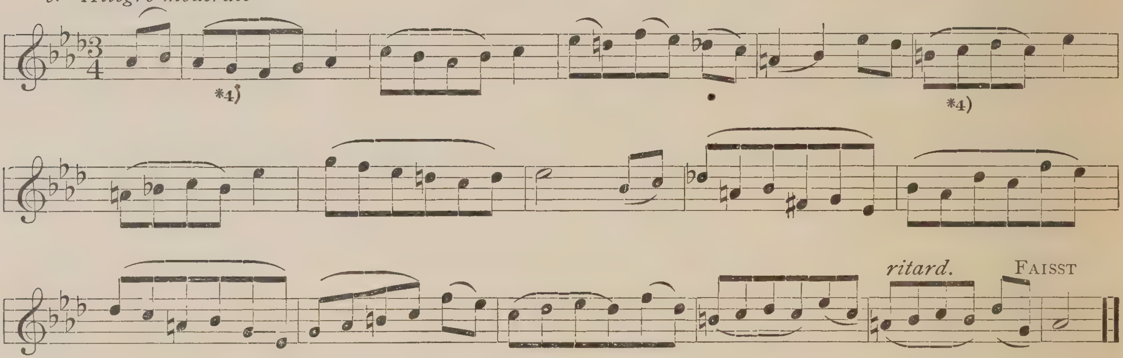
a. *Maestoso*

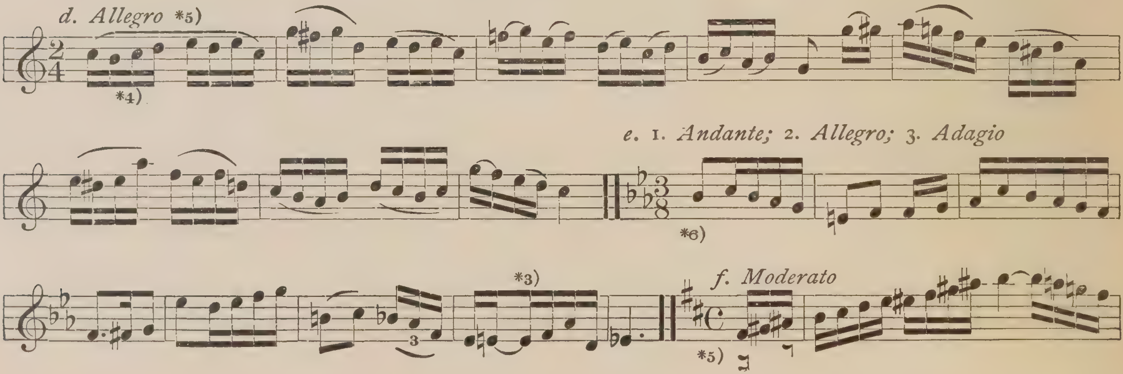


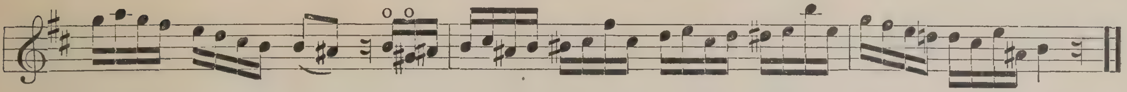
b. *Allegretto*



c. *Allegro moderato*


*4)
*4)
ritard.
FAISST

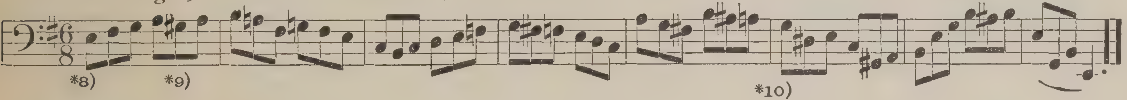

d. Allegro *5)
*4)
e. 1. Andante; 2. Allegro; 3. Adagio
*6)
*3)
f. Moderato
*5)



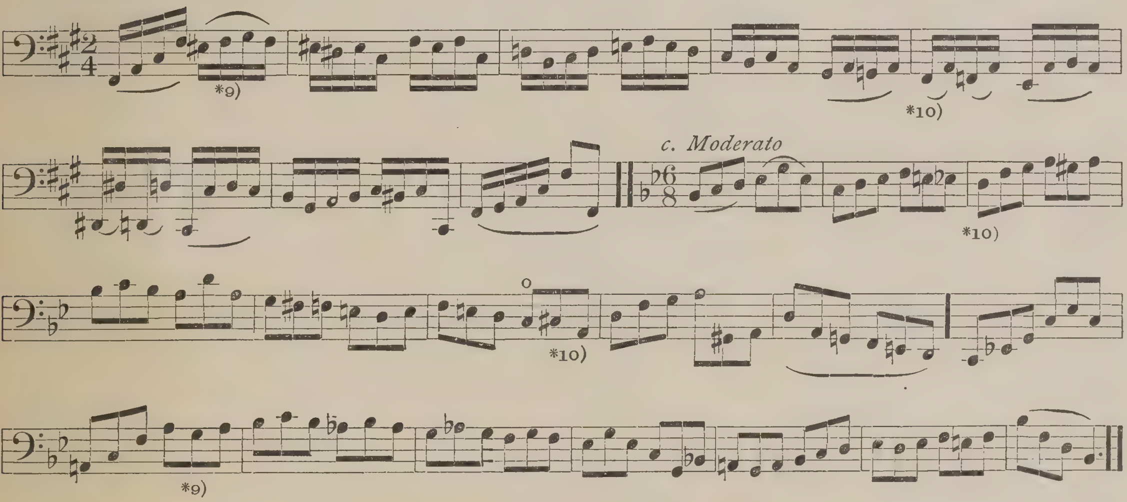
*1) The first four melodies are supplied with slurs which indicate the rhythm of the harmony (lower parts). — *2) May be a neighboring-note. — *3) Suspensions. — *4) The predominating tone in a group is the *principal tone.* — *5) In melodies of this kind, with rapid figures and large compass, the three lower parts may be written *together* on the lower staff. And the volume of tones may be altered at will, to represent fewer or more than four parts. See par. 462. — *6) To be harmonized in each of the 3 given grades of tempo, according to par. 422.

B. **Florid basses.**

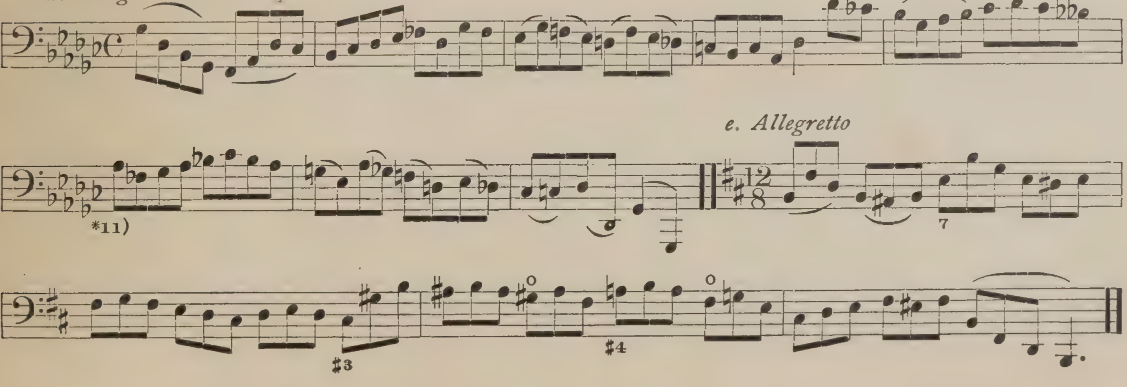
a. 1. *Allegro;* 2. *Andante cantabile* *7) FAISST

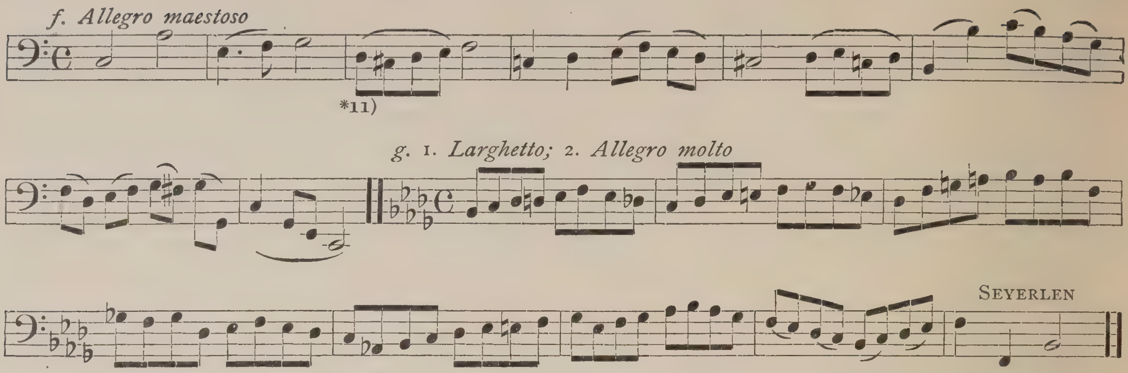


b. Vivace



d. Allegro moderato





*7) Like Note *6). — *8) In all of these basses, excepting perhaps *f*, the three upper parts may be placed together on the upper staff. See Note *5). It is chiefly important, as usual, *to obtain a good soprano melody*. This may be defined completely, before the inner parts are added. Fix the principal melody-notes at first approximately (from accent to accent) with general regard to the harmony *and modulations*, and, as a rule, in *contrary direction* from the bass. All slurs may be ignored, or modified. — *9) Note *4). — *10) Tones which skip are probably *harmonic*. — *11) Sequences should be treated as uniformly as possible.

WANDERING HARMONIES. MODULATIONS WITH INHARMONIC TONES.

424. There is still another principle of chord-succession, more widely removed from the fundamental diatonic law (par. 259) and more comprehensive than any heretofore considered; it emanates from the principle of chromatic changes (par. 323), of pivotal modulations (par. 346), and also involves the use of inharmonic tones more or less extensively.

The ruling condition for these "wandering harmonies," — as far as it is possible to systematize so elusive a process, — seems to be: *That any change which results from either a whole-step or half-step progression in any or all of the parts, is permissible* (as long as it preserves a reasonable degree of consonance), by virtue of the relation of propinquity.

425. The rules may be formulated about as follows:

1. Some *chord-form*, — it matters little which, or what its tonal significance may be, — should be distinctly recognizable on each accent, or important beat. The more nearly these chord-forms conform to the *natural* succession of chords, the better. Comp. rule 5, below.

2. Wide skips should be almost entirely avoided; *every* part (excepting perhaps the bass) should move conjunctly, either in whole-step or half-step progressions.

3. A direct melodic line (either continuously downward, or upward, or sequential) should be followed in bass or in soprano. The tones may represent any time-values (rhythm), and be harmonic or not.

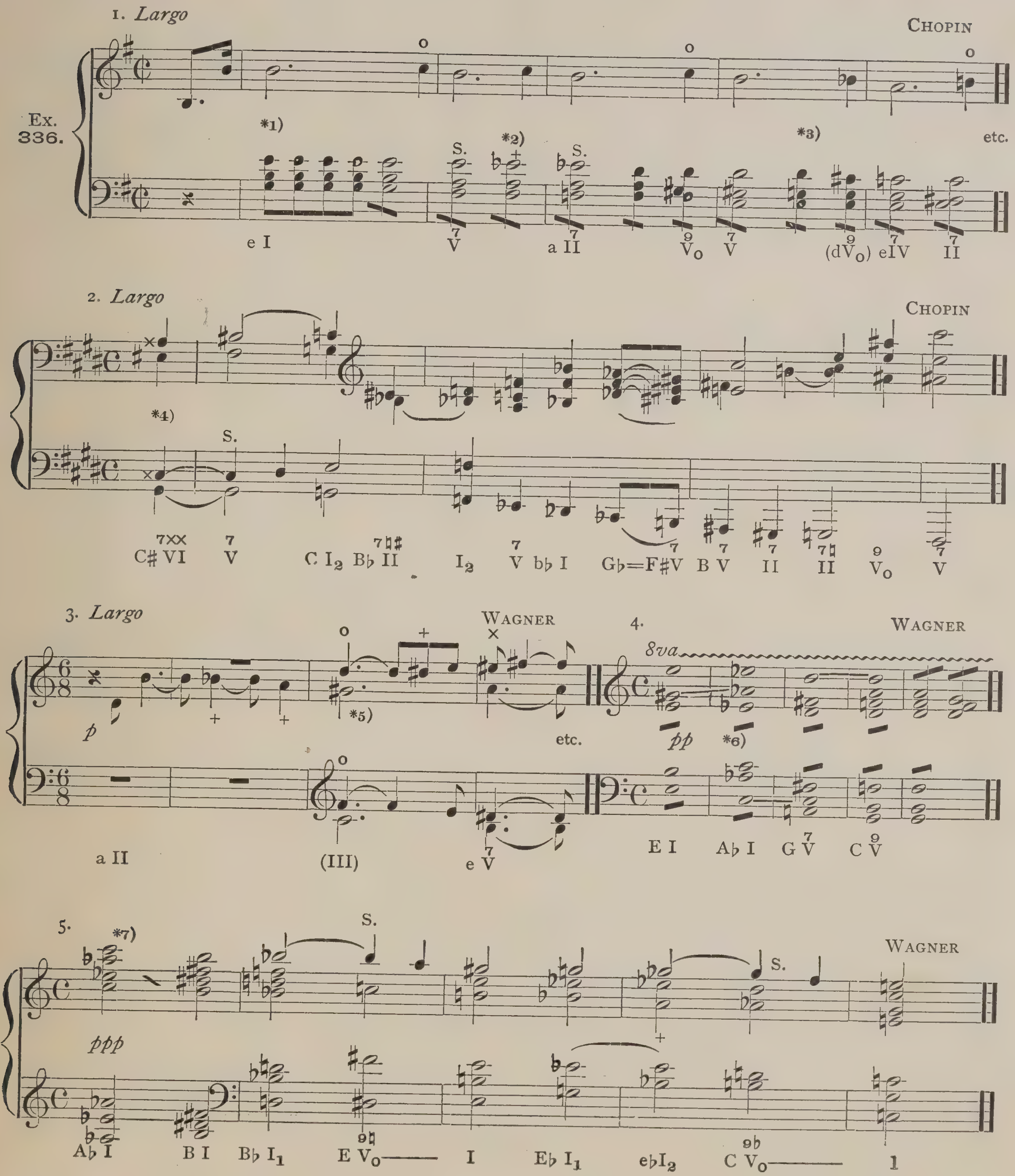
4. The more urgent active tones should be scrupulously resolved, excepting in chromatic progressions.

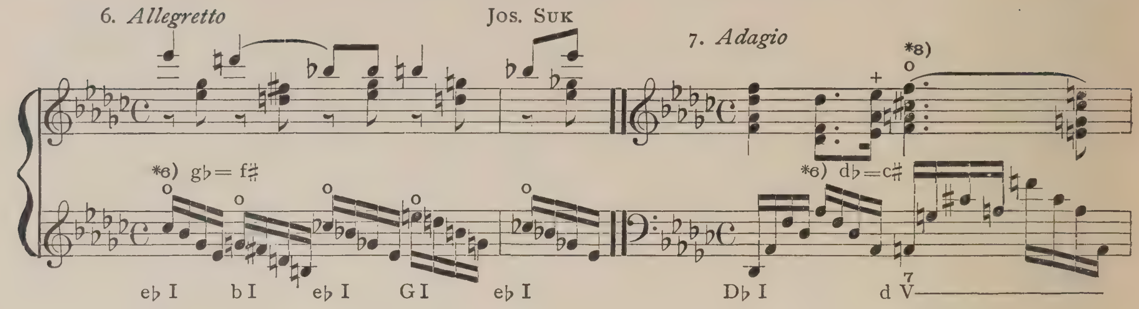
5. A fairly frequent movement (resolution) of V into I, and other normal progressions, should be distinctly felt.

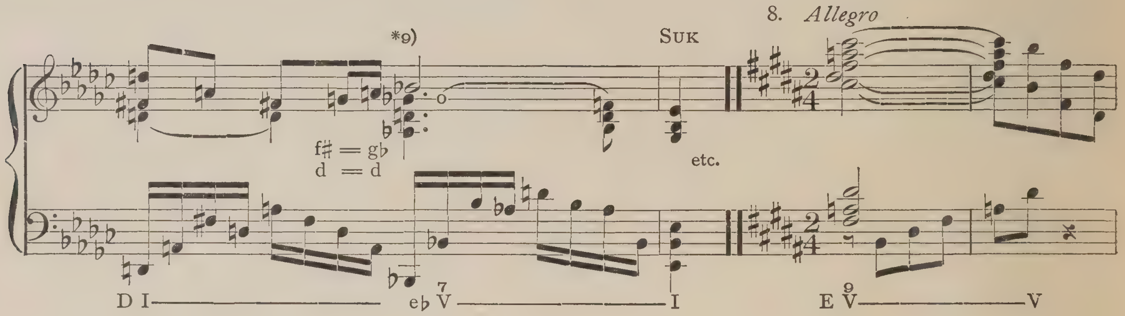
6. Every tone should be analyzable according to the logically developed system of tone-relations and obligations. A passage which wholly evades rational analysis cannot endure.

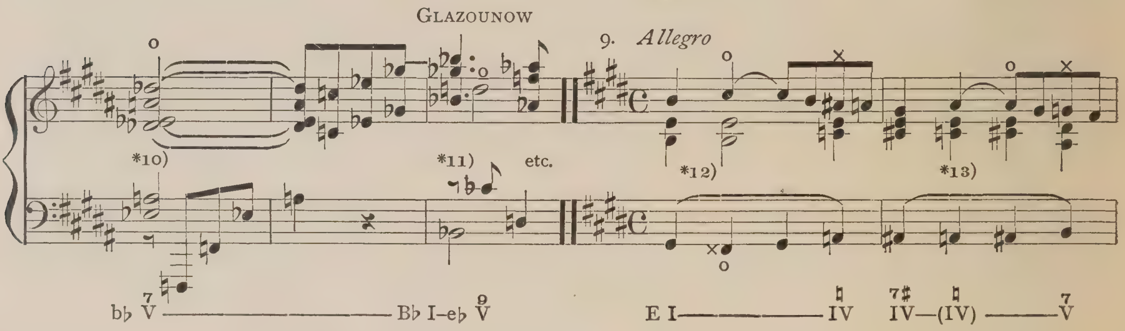
For illustration:

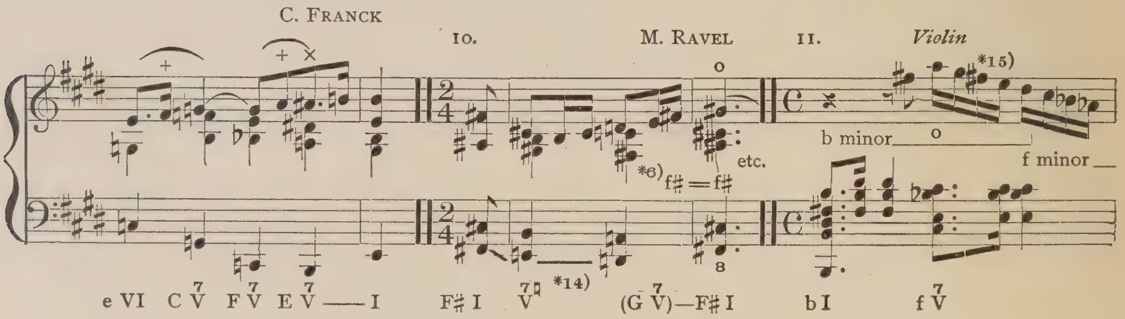
Ex. 336.


1. Largo
Chopin
*1)
*2)
*3)
S.
etc.
e I
V
a II
V₀
V
(dV₀)
eIV
II
2. Largo
Chopin
*4)
S.
C♯ VI
V
C I₂
B♭ II
I₂
V
b♭ I
G♭=F♯V
B V
II
II
V₀
V
3. Largo
Wagner
*5)
p
etc.
a II
(III)
e V
4.
Wagner
8va
pp
*6)
E I
A♭ I
G V
C V
5.
*7)
S.
Wagner
ppp
A♭ I
B I
B♭ I₁
E V₀
I
E♭ I₁
e♭I₂
C V₀
1

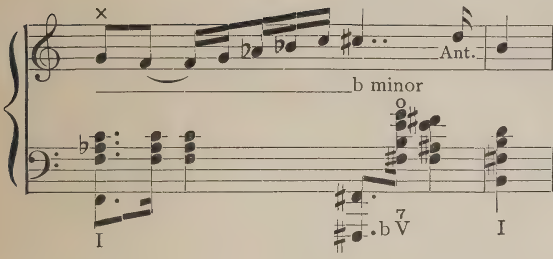

6. Allegretto
Jos. Suk
7. Adagio
*8)
*6) g♭ = f♯
*6) d♭ = c♯
e♭ I
b I
e♭ I
G I
e♭ I
D♭ I
d V7


*9)
f♯ = g♭
d = d
Suk
etc.
8. Allegro
D I
e♭ V7
I
E V9
V

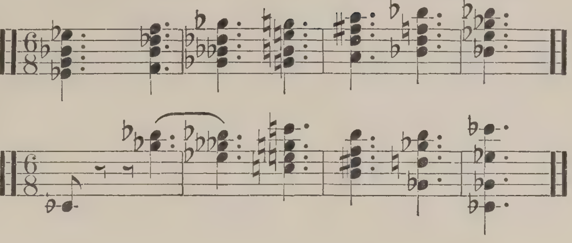

Glazounow
*10)
*11)
etc.
9. Allegro
*12)
*13)
b♭ V7
B♭ I–e♭ V9
E I
♮IV
7♯ IV—(♮IV)
V7


C. Franck
10.
M. Ravel
11.
Violin
*15)
b minor
f minor
etc.
*6) f♯ = f♯
*14)
e VI
C V7
F V7
E V7
I
F♯ I
V7♮
(G V7)—F♯ I
b I
f V7

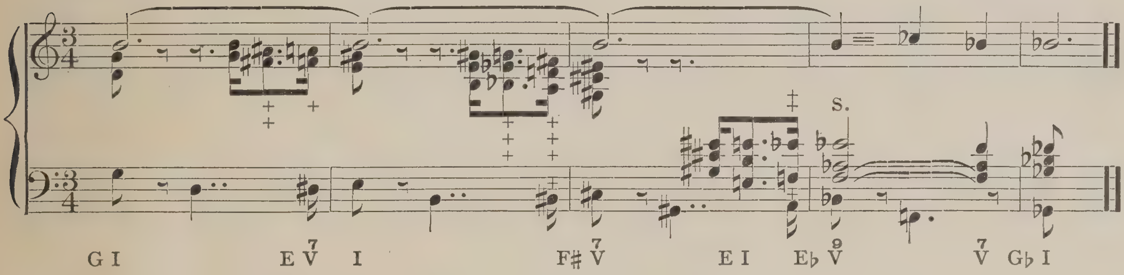
FRITZ KREISLER


×
Ant.
b minor
I
b V 7
I

12. *Lento* E. HUMPERDINCK

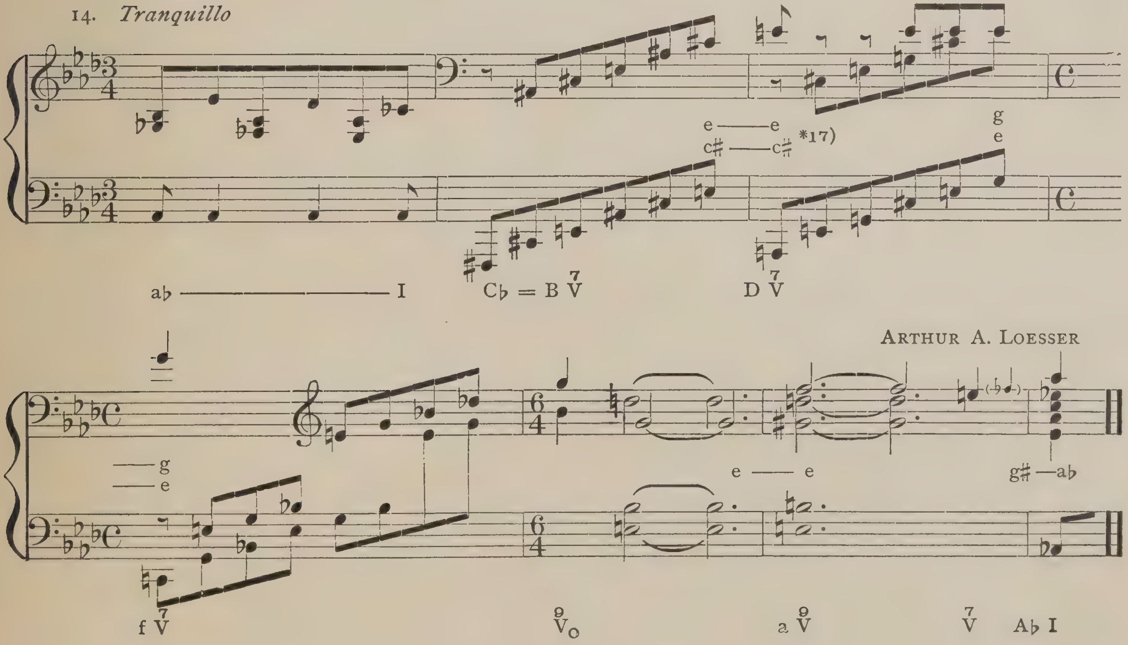


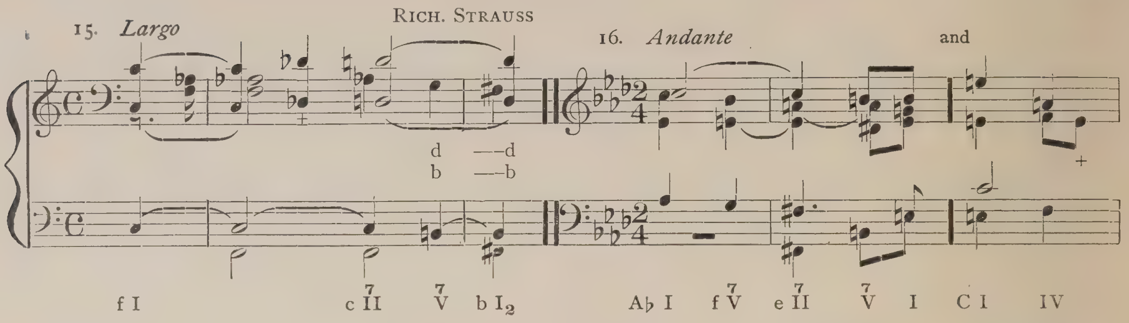
13. *Lento* HUMPERDINCK

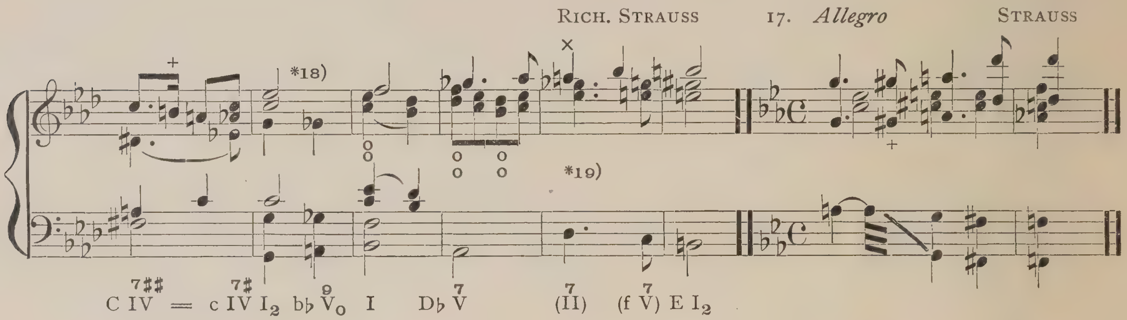

*16)
+
‡
S.
G I
E V 7
I
F♯ V 7
E I
E♭ V 9
V 7
G♭ I

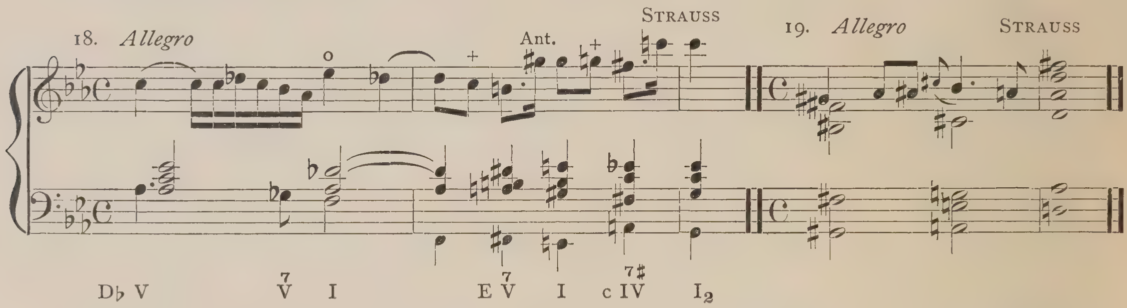
14. *Tranquillo*

ARTHUR A. LOESSER


e — e
c♯ — c♯ *17)
g
e
ab — I
C♭ = B V 7
D V 7
g
e
e — e
g♯ — a♭
f V 7
V 9 o
a V 9
V 7
A♭ I


15. Largo
Rich. Strauss
16. Andante
and
d ——d
b ——b
+
+
f I
c II 7
V 7
b I2
A♭ I
f V 7
e II 7
V 7
I
C I
IV


Rich. Strauss
17. Allegro
Strauss
+
*18)
×
*19)
+
C IV 7♯♯
=
c IV 7♯
I2
b♭ V0 9
I
D♭ V 7
(II) 7
(f V 7)
E I2


18. Allegro
Strauss
19. Allegro
Strauss
Ant.
o
+
+
D♭ V
V 7
I
E V 7
I
c IV 7♯
I2

*1) Observe the uniform soprano figure, and the chromatically descending bass. — *2) It is probable that this *e♭* should be written *d♯*. That would simplify the analysis. The student will often encounter similar cases of uncertain notation, and must remember that if the analysis of a passage is quite baffling, it may be because the composer wrote hastily, with transient disregard of the true notation. In such cases, the student may test the result *by altering the notation judiciously*. Comp. par. 285. — *3) The "chord-form" on this 3rd beat is obvious, but its "name" is doubtful. *4) Almost all legitimate chords. Observe the bass line. — *5) Or, with *a♭* in alto (for five beats, — then *g♯*): *C* $\overset{7\flat}{\text{II}}$—*a* III. Comp. Note *2). — *6) Note the pivotal tones. — *7) Continuous chromatic line in soprano. — *8) The *f*, which is the mediant of the first key, becomes an upper neighbor (or suspension) of *e*. At the same time, the former tonic becomes a leading-tone. — *9) Similarly, the mediant, *f♯*, becomes an upper neighbor; and tonic becomes leading-tone. — *10) This tone-body is almost identical with the first chord, — but the 9th (*c♯*) has become an upper neighbor, with fine effect. — *11) Similarly, the 9th (*g♭*) becomes the upper neighbor of *f*. — *12) Observe the sequences in both outer parts. — *13) The tones *a♮* and *c♮* have precisely the effect of lower neighbors of the chord-tones before and after. — *14) This bass constitutes the descending minor form (lowered 7th and 6th steps, — par. 272*f*) of *F♯* major. The upper parts adjust themselves smoothly, though rather grotesquely, to it. — *15) In the violin-part, a scale in successive whole steps. The first five tones follow the lingering impression of the preceding key; the rest follow the track of *f* minor. The second measure is a sequence, *harmonically identical* with the first. — *16) The *b* in soprano is a pivotal tone, first as 3rd, then as 5th, 7th, and finally 9th. Note the sequences in bass. — *17) Note the pivotal tones. — *18) Note the soprano line. — *19) A fine illustration of wandering harmony; it baffles exact chord-analysis, but is *smooth* and wholly plausible.

See also **Grieg,** Ballade, op. 24, *Theme* (note the descending bass); and Nocturne, op. 54, No. 4, measures 5–14; 49–54 (consecutive dom.-7ths).

WARNING NOTE.

426. These extraordinary examples have been incorporated in the book because the author believes that it would be unscientific to disregard them. But the student is earnestly reminded that such combinations contribute to the *interest only,* — not to the durability, — of a composition; and that they serve an important purpose only when used in great moderation. The student should thoroughly absorb the following esthetic principles:

On the one hand, — *avoid too great simplicity, too great regularity, monotony, and lack of ingenuity;*

On the other hand, — *avoid extravagance, lawlessness, eccentricity, and grotesqueness.*

In a word, — **cultivate moderation** in every respect. An occasional unique effect is very valuable and necessary; but the value of any object is increased by its rarity; — abundance deprives it of its value, makes it "cheap." The unconquerable power of the music of **Beethoven** (also of **Mozart, Bach, Brahms, Schubert,** and other classic masters) lies in the *moderation* he constantly exercises; in the unwavering loyalty to the **natural laws** of tone-association, the normal conditions and relations of chord-movement, properly blended with an occasional irregularity that matches the most consummate ingenuity of any modern writer. Cultivate moderation; all defect lies in exaggeration.

EXERCISE SEVENTY-ONE.

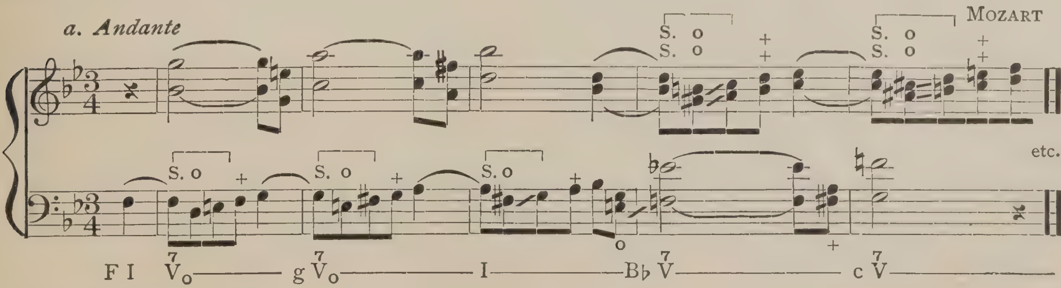
The student may experiment with the above material, in **Original phrases** and periods. Or he may, perhaps more wisely, defer this exercise until he shall engage in the study of Counterpoint.

ANALYSIS.

427. In conclusion, the student is recommended to analyze the following compositions from time to time during the study of Part V, in the given order, defining the chords, the modulations, and all inharmonic intervals. Ex. 337 will serve as a model, though more knotty passages than these will rarely be found. Always consider the **tempo,** *and direct the attention constantly forward* to the following chord or two.

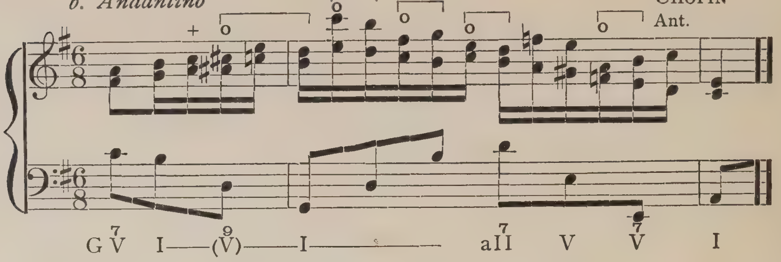
Mendelssohn: Songs w. Words, Nos. 15; 12; 30; 6; 48; 41; 28; 35; 27; 11; 40.
Cramer: Études, Nos. 75; 84.
Mozart: Sonata in *D* major (Schirmer edition, No. 14), complete.
Beethoven: Sonata op. 14, No. 2, 1st mov't; op. 27, No. 1, 1st and last movements.
Schubert: Sonata No. 8 (*C* minor), 1st mov't; No. 5, op. 143, complete.
Mendelssohn: *Scherzo a capriccio* in *F*♯ minor.
Bach: Well-tempered Clavichord, Preludes (Book II) 12; 16; 19; and Fugues (Book I) 5; (Book II) 7; 21.
Chopin: Nocturne, op. 37, No. 2; Preludes op. 28, Nos. 7; 9; 17; (14), and others.
Beethoven: Variations op. 120, complete; Sonata op. 101, complete.
Schumann: op. 15, complete. "Humoreske" op. 20, complete.
Wagner: "Lohengrin," Introduction to Acts I and III. Also portions of "Tristan und Isolde."
Brahms: Piano-pieces, op. 76, Nos. 7; 6; 4; 1; 2; 3. Op. 116, Nos. 2; 5; 6. Op. 119 complete.

Ex. 337.



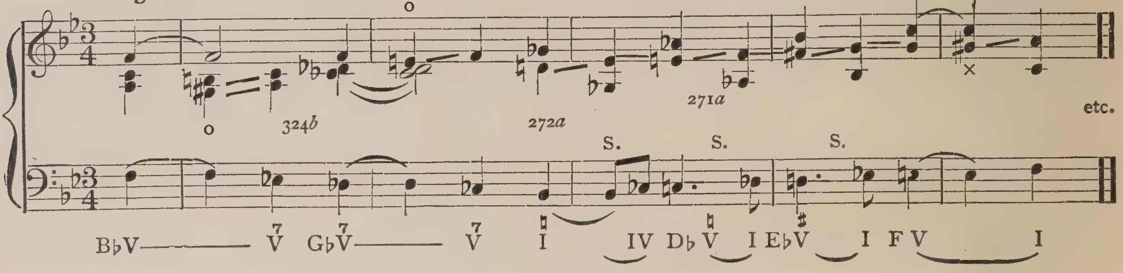
b. Andantino

CHOPIN


Ant.
+
o
G V7 I—(V9)—I— aII7 V V7 I

c. Allegro

SCHUMANN. Op. 21, No. 8


o
324b
272a
271a
×
etc.
S.
S.
S.
B♭V— V7 G♭V7— V7 ♮I IV D♭ ♮V I E♭ ♯V I F V I

PART V.

VOCAL AND INSTRUMENTAL HARMONY WITH AN IRREGULAR NUMBER OF PARTS (FEWER OR MORE THAN FOUR).—STYLE.

SECTION 1. VOCAL HARMONY.

428. The general distinction between vocal and instrumental harmony is, that the former is the more strict, more quiet, and more limited in compass. In vocal music there is a definite number of "voices" or tone-lines, which are adhered to, and are treated with more equal consideration than instrumental "parts," which often sacrifice their individuality, partly or completely, in the variable volume of tone.

THREE-PART HARMONY.

429. When the number of parts is decreased from four to three (or even to two), the omission of certain chord-intervals is unavoidable, and duplications are less common than in regular four-part harmony.

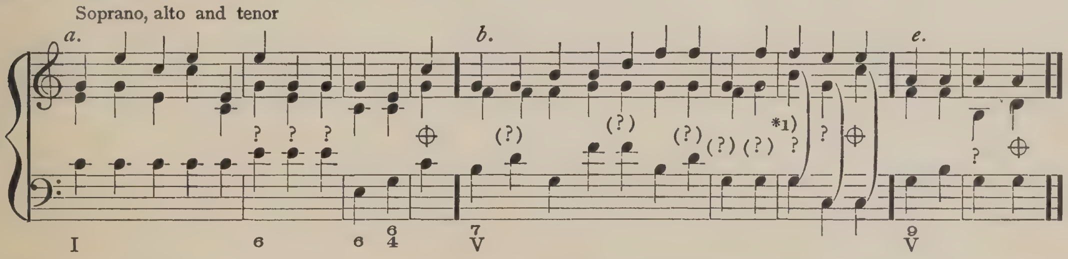
430. The rules for 3-part harmony are as follows:

a. In *triads*, the fifth may be freely omitted, and the root doubled. Or the root may occasionally be omitted, and the fifth or third doubled. The chord-third, on the contrary, *should not be omitted* — in triads.

b. In *chords of the seventh*, the fifth is more generally omitted than the third, though much depends upon the quality of the chord. The root may occasionally be doubled, and both third and fifth omitted.

c. In *chords of the ninth* (which are naturally rare), third and fifth, or root and fifth are to be omitted. No intervals are doubled. Thus:

Ex. 338.

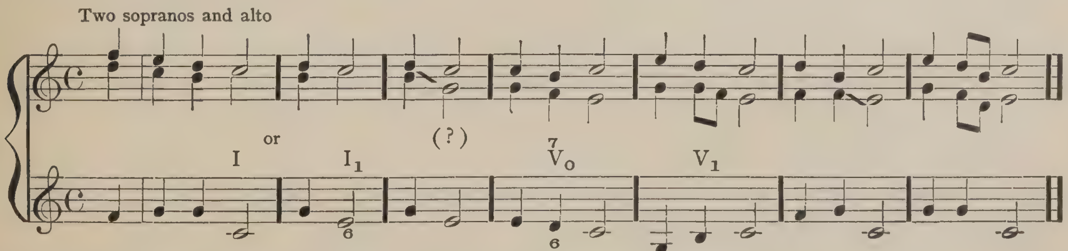


*1) See par. 58. It is possible to lead adjacent voices more than an octave apart, but wise to avoid it, — especially in the two upper parts.

431. *a.* The perfect cadence may consist of the open tonic octave (I, with third and fifth omitted); or the I_1 may be substituted for the I itself. But in the latter case the fifth is generally omitted and the root doubled, in order to impart greater emphasis to the tonic note.

b. An inversion may also be substituted for the V or $\overset{7}{V}$ at the cadence; and the lower parts may *cross*, if the cadence can thereby be made smoother or stronger. Thus:

Ex. 339.



See the Terzet for female voices in "Elijah"; and Ex. 227-1 (tenor, alto, soprano).

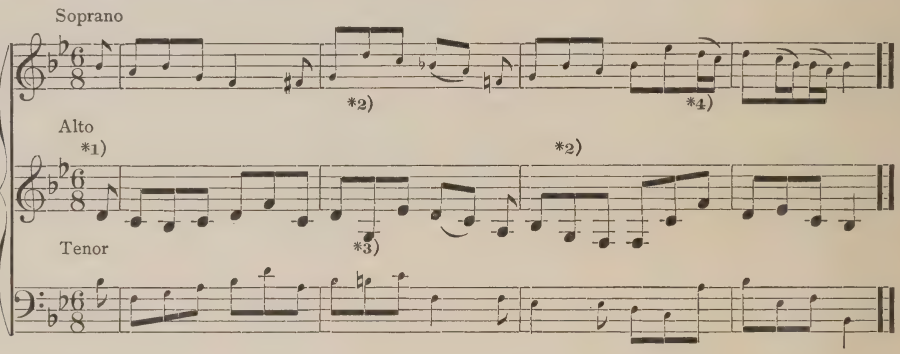
EXERCISE SEVENTY-TWO.

A. Exercise 31, basses *a*, *c*, *d*, *f* (and the others, at option) are to be transposed a *fifth higher*, and set for tenor, alto and soprano. The given bass figuring may be retained, or the pupil may treat the basses as *unfigured*, and choose his own chords and modulations. First *complete the soprano melody* (regardless of the given positions) and add the inner part last.

B. Any of the melodies given in Exercises 16, 17, 22, 27, 32, 36, and 55, — to be set for soprano, alto and tenor. No regard need be paid to the given slurs. The student is advised to use a *separate staff for each part*, as in Ex. 340.

C. The melodies of Exercises 16, 17 and 22 are to be transposed an *octave lower* (or a little less, according to circumstances), and used as **alto part,** accompanied by one upper and one lower part. For example:

Ex. 340.



*1) Given melody, Exercise 22, *g*. — *2) Ex. 338, Note *1). — *3) The lower parts may occasionally cross. — *4) *Passing-notes* may be used at discretion, but according to the rules of rhythm; *i.e.*, chiefly on unaccented beats. And perfect freedom may be exercised in modulating.

Two-part Harmony.

432. **Two-part harmony** is, properly speaking, no more than a succession of *intervals;* for the fundamental succession of *chords*, when expressed by two parts alone, is necessarily vague. Nevertheless, even *two* parts must coöperate in obedience to the laws of harmonic progression as far as their application is possible; and, for this reason, the only absolutely unquestionable intervals are *the 3rds* (or 10ths) and their inversions, *the 6ths*, — the fundamental intervals of chord-formation. A distinction is made between the *full* beats and the *fractions* of beats, as follows:

433. Rules for full beats.

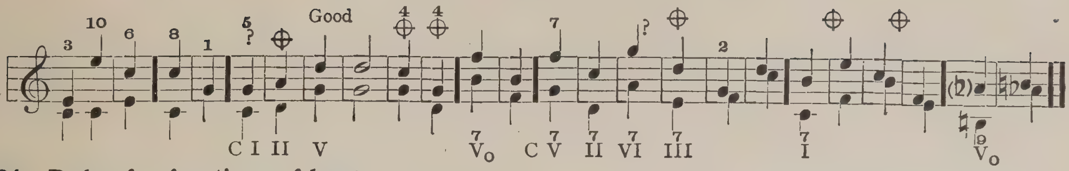
a. A *third* (or *tenth*) or a *sixth* can be used without any other limitation than that indicated in par. 435*a*, upon full beats, accented or unaccented, and in any duration. Whether the 3rd or the 6th be chosen, depends upon the chord it evidently represents, and upon the melodic tendency of the parts.

b. The *octave* is admissible.

c. A *perfect fifth* represents a triad with omitted third, and is therefore to be avoided. It is allowed, exceptionally, *in the V*. The *perfect fourth* represents a 6–4 chord without its third, and is strictly prohibited. The *diminished fifth* and *augmented fourth* represent the $\overset{7}{V}_{o}$ with omitted fifth, and are therefore admissible.

d. The *minor seventh* (or *major second*) is allowed, but the quality of the chord which it represents must be considered. *Major sevenths* (or *minor seconds*) are to be avoided. The *diminished seventh* (*augmented second*) is allowed. See also paragraph 42. For illustration:

Ex. 341.

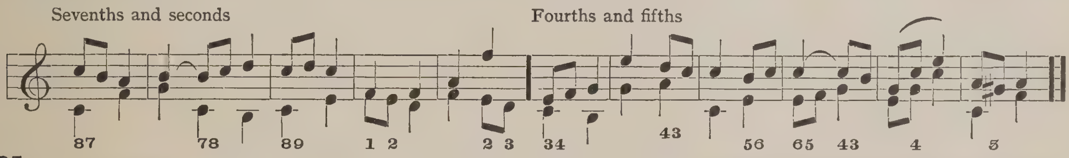

10
3
6
8
1
5
?
Good
4
4
7
?
2
C I II V
7 V0
C 7 V
7 II
7 VI
7 III
7 I
♮9 V0

434. Rules for fractions of beats.

a. Upon fractions (accented or unaccented) of beats **any interval** may be used, either as harmonic combination, or as suspension, neighb.-note or passing-note.

b. All exceptional intervals (7th, 2nd, 9th, 4th, 5th) must appear as modifications of the unobjectionable 3rd, 6th or 8th. Thus:

Ex. 342.


Sevenths and seconds
Fourths and fifths
87
78
89
1 2
2 3
34
43
56
65
43
4
5

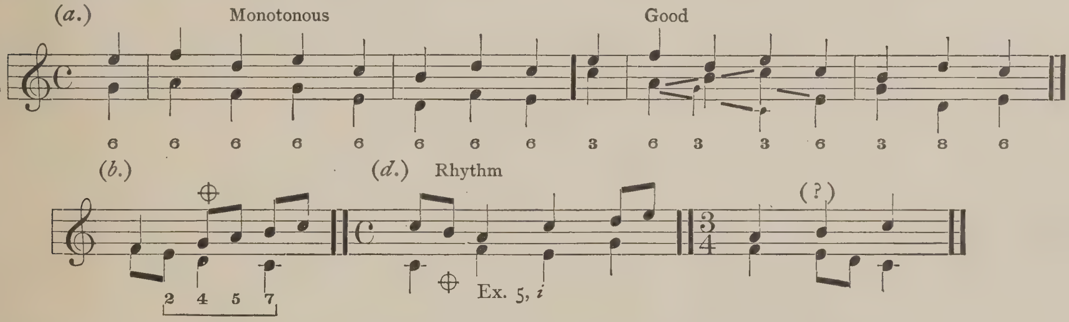
435. *a.* Intervals of the third or sixth should not occur too often in direct succession; as a rule, not more than three (or four) times.

b. It is objectionable to use weak or harsh intervals in succession.

c. The part-progressions must be as *melodious* as possible.

d. The rules of rhythm must be strictly regarded. Ex. 340, Note *4). For example:

Ex. 343.


(*a.*)
Monotonous
Good
6 6 6 6 6 6 6 6 3 6 3 3 6 3 8 6
(*b.*)
2 4 5 7
(*d.*)
Rhythm
Ex. 5, *i*
(?)

The rules of two-part harmony, as here enunciated, are the essence of the laws of two-part *counterpoint.*

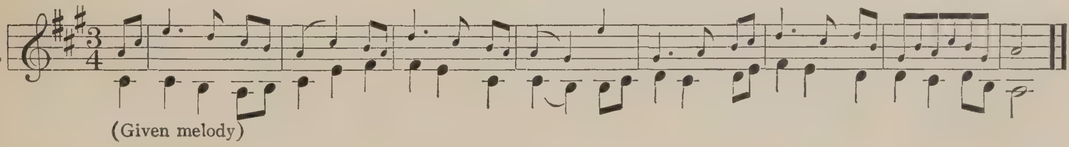
EXERCISE SEVENTY-THREE.

A. A number of melodies from former exercises are to be supplied with an accompanying alto part, according to the above rules. It is not necessary that the added part should have the same rhythm as the given part; on the contrary, diversity of rhythm is very desirable. But see par. 435*d*, and be careful that the heavier notes occupy *accented* beats. The utmost freedom in modulating is allowed.

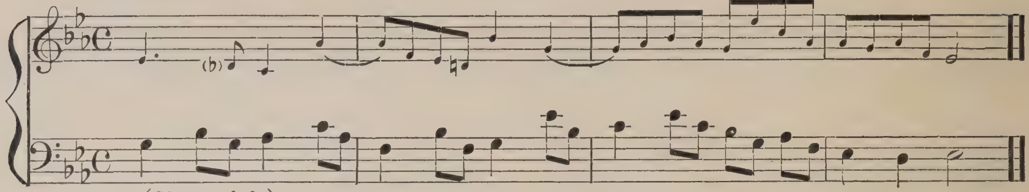
B. The same, or other, melodies, to be transferred an octave *lower, as alto* (*or tenor*) *part,* and supplied with an accompanying *soprano.* For example:

a. (Exercise 36, *a.*)

Ex. 344.


(Given melody)

b. (Exercise 22, *i.*)

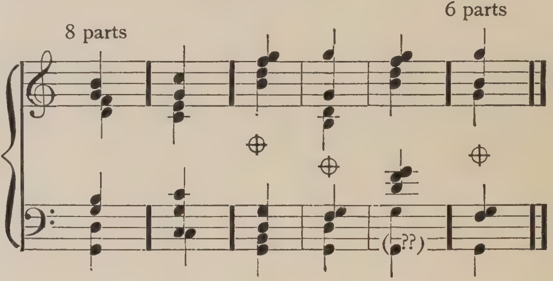


(Given melody)

FIVE- TO EIGHT-PART HARMONY.

436. When **five, six, seven** or **eight** parts are employed, it is important to keep the parts well balanced, in regard to their *distance* from each other, and in regard to the *duplication* of the chord-intervals. It is particularly unfavorable in copious harmony *when the lower parts lie too close together;* but even the upper parts should avoid too close proximity. For instance:

Ex. 345.



437. *Hints and directions.*

a. The inner parts may cross without scruple. But an *inner* part should not cross either the *soprano* or *bass.*

b. Almost any tone may be doubled; but only the principal tones should be tripled.

c. Interrupted 8ves and 5ths, and unequal 8ves, are allowed *between any but the two outermost parts.*

d. The two or three lowermost parts must be kept wider apart than the higher ones (excepting when any two adjacent parts have the same tone *in unison*), as small intervals sound dense in the low register. Ex. 345, measure 3.

c. Wide skips are often unavoidable, particularly where the parts cross and re-cross; but awkward leaps should be avoided.

f. When a larger number of parts are employed, chords of the seventh should be freely used, as they afford more tone-material than simple three-tone chords. See also Ex. 169, measures 3 to 5.

g. The harmonic progressions should be very simple. The difficulty of connecting certain chords in four-part harmony is greatly increased with each additional part. This applies particularly to foreign chord-progressions, and chromatic successions. The combination of related chords, and **especially repetitions,** give but little trouble.

---

438. *a.* In **five-part** harmony (the usual four voices with an additional soprano or mezzo soprano, or tenor), sensitive tones need not be doubled. The principal tones of the scale and chord are generally *tripled.*

See **Mendelssohn,** "St. Paul," Choruses Nos. 23 and 36. — **Bach,** *B*-minor Mass, Choruses Nos. 1, 4, 11, 12, 15, etc.

b. In **six-part** harmony (doubled soprano and tenor) the principal tones of the scale are tripled, as a rule, and the next best interval of the chord doubled. But, as strict observance of this rule would needlessly enchance the difficulties which attend the manipulation of a large number of distinct parts, it must be applied only as a general principle.

See **Bach,** *B*-minor Mass, Chorus No. 20.

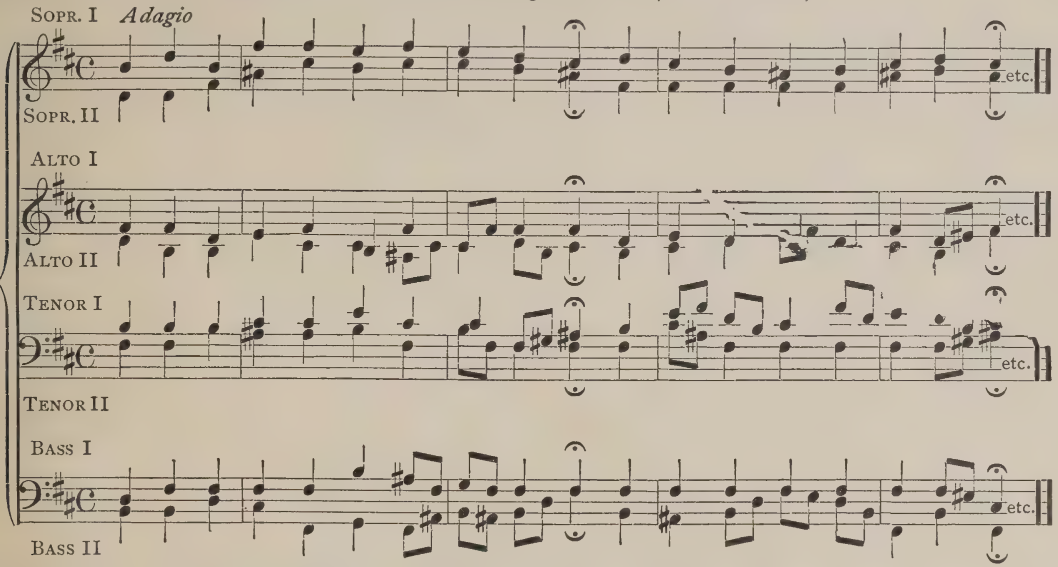
c. **Seven-part** harmony is comparatively rare in vocal music. The original four parts are usually doubled, as in eight-part harmony, with the exception of the alto or bass.

See **Händel,** "Alexander's Feast," Chorus No. 6. — **Beethoven,** "Fidelio," Act I, Finale, Chorus of prisoners (also eight-part).

d. In **eight-part** harmony (each of the four original parts doubled) every licence, in reference to the duplication of sensitive tones, and irregular part-progressions, may be freely employed.

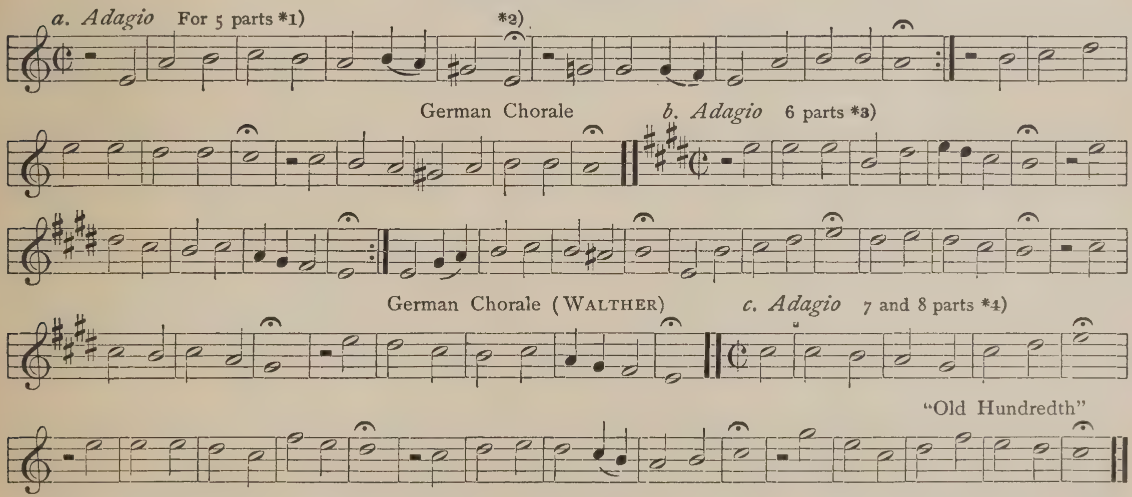
See **Bach,** *B*-minor Mass, Chorus No. 21. And the following illustration (German chorale):

Ex. 346.


Sopr. I
Adagio
Sopr. II
Alto I
Alto II
Tenor I
Tenor II
Bass I
Bass II
etc.

Other examples of Six, Seven and Eight-part choruses may be found in **Händel's** "Israel in Egypt" (*e.g.*, Nos. 12, 13, 16, 19, 23, 25, etc.).

EXERCISE SEVENTY-FOUR.


a. Adagio
For 5 parts *1)
*2)
German Chorale
b. Adagio
6 parts *3)
German Chorale (Walther)
c. Adagio
7 and 8 parts *4)
"Old Hundredth"

*1) To be harmonized twice; at first with *two tenors*, and then with *two sopranos*. Three staves are to be used (similar to Ex. 340). — *2) The end of each line, marked 𝄐, must be a substantial *triad*. — *3) In this chorale four staves must be used, as in Ex. 346. — *4) Seven-part harmony (one bass part, instead of two) during the first line (4½ measures); and then 8-part harmony to the end. — Besides these melodies, the chorales in Exercise 68 (2, 3 and 4) and some of the basses of Exercises 7, 9, 10, 20, 29, 33, and others, may also be set for 5 to 8 parts.

SECTION 2. INSTRUMENTAL HARMONY.

FIGURATION OR BROKEN CHORDS. ACCOMPANIMENTS.

439. Instrumental music possesses many advantages over vocal music, the most striking of which are a more extended *compass*, greater facility of *technique*, and the possibility of producing *simultaneous* tones upon many of the single instruments.

The instrument which is probably most familiar and most accessible to the student, and which is best suited to the purpose of this Section, is the *pianoforte*. Therefore, that instrument is adopted as the basis of the following exercises.

---

440. When the intervals of a chord *appear successively in the same part*, instead of *simultaneously in different parts* (as heretofore), the chord is "broken" or "dissolved."

441. The succession of the different chord-intervals constitutes a melodic **figure** or **motive**; hence, the term **"figuration"** is applied to a harmonic progression in which the chords are broken according to an adopted motive, — as accompaniment.

442. A chord may be thus dispersed, or broken, for three reasons:

(1) For the melody-line itself, as seen in Ex. 18;

(2) For the accompaniment, — the principal reason; or

(3) For the rhythm (Ex. 364). See **Mendelssohn,** Song w. Words No. 15, last 5 measures, where all three purposes are effected (the rhythm in bass).

443. There are three distinct species of figuration, namely:

Harmonic figuration (consisting exclusively of chord-intervals);

Melodic, or mixed, figuration (in which inharmonic tones are interspersed); and

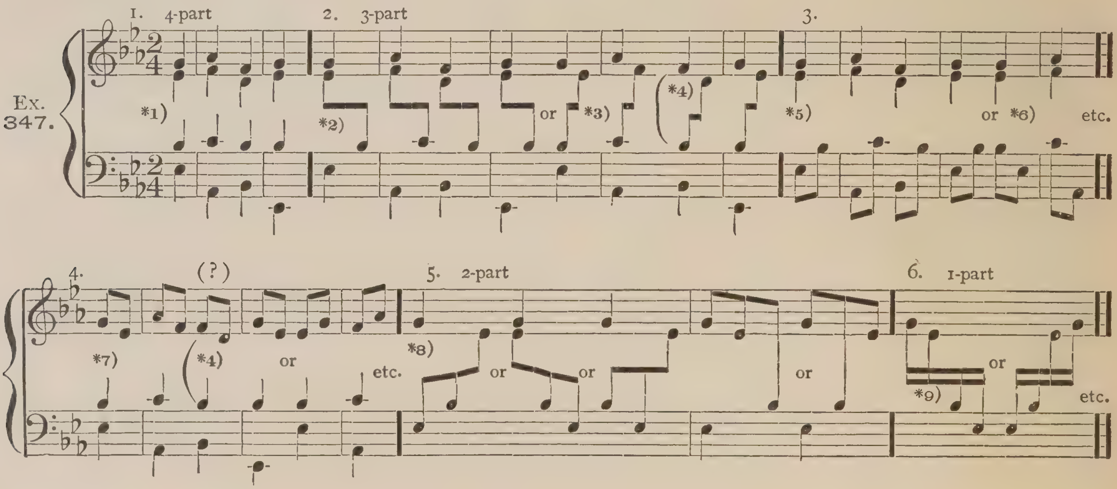
Rhythmic figuration (in which the tones or chords are simply reiterated).

HARMONIC FIGURATION.

444. The simplest kind of harmonic figuration is based upon regular four-part harmony. The notes of two, or three (or of all four) adjacent parts appear successively, in such order as the adopted motive dictates, but usually so *that the most important harmonic interval* (usually a 3rd or 6th) *falls upon the accented beats.*

For illustration:

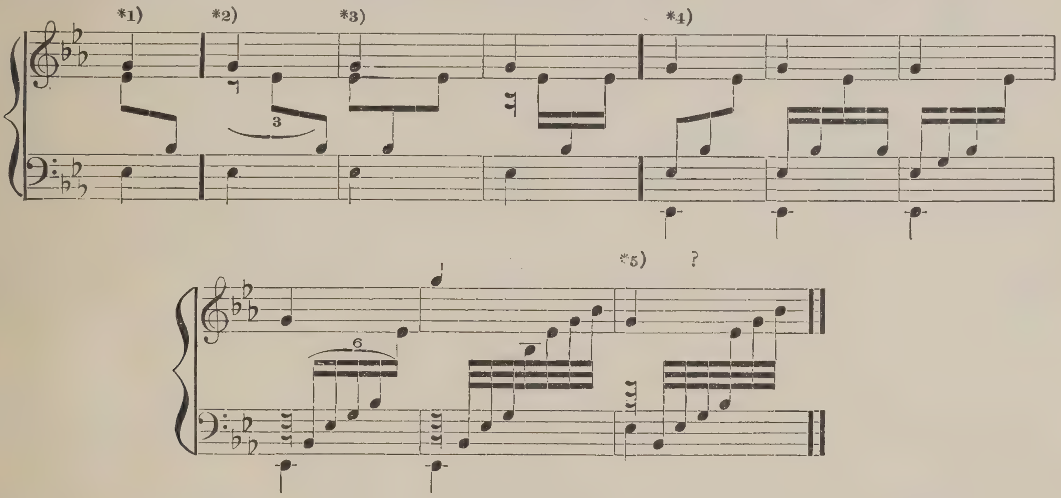
Ex. 347.



*1) The original, unbroken, harmonic succession. — *2) The notes of the original alto and tenor appear *successively*, creating one "figural part," instead of two melodic parts. — *3) Here as ascending figure. — *4) The open 5th is a little meagre, but not wrong. — *5) The original bass and tenor, ascending. — *6) The same, descending. This is somewhat irregular, as the original bass tones may need to be heard in their proper places, on the beat. — *7) Soprano and alto merged in one figural part. — *8) The three lower parts merged in a figural part. — *9) All four parts merged.

445. All larger (longer) figures, or "figural motives," *grow out of the simple figures that were derived thus from the original 4-part harmony*, by the following means: (1) by rests; (2) by repetitions; (3) by extension into a higher or lower octave; (4) by adding inharmonic tones (as *melodic* figuration, — see par. 458). Thus:

Ex. 348.

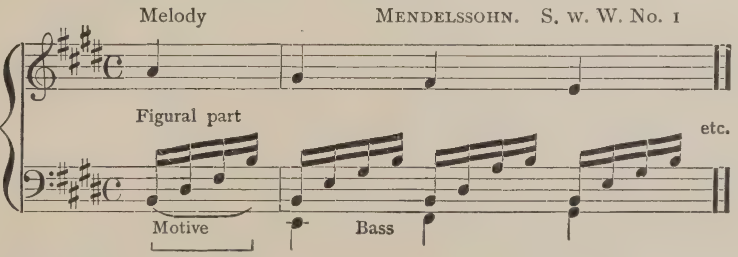


*1) The simple motive from Ex. 347, No. 2. — *2) A rest is substituted for the first stroke. — *3) The first tone recurs as third stroke. — *4) The *lower octave* of the original alto note is preposed. The bass is lowered, to make room for the extension. — *5) It is better not to let the figural part overlap the outer parts.

THE REGISTERS OF THE FIGURAL PART.

446. The figural part occupies perhaps most commonly the **middle (or inner) register,** embracing a part, or, if necessary, all of the harmonic intervals *lying between the original melody and its bass* Thus:

Ex. 349.



See also **Mendelssohn,** Songs without Words:
- No. 15 *1) (figural motive of 6 notes);
- No. 19 (figural motive of 5 notes preceded by a rest);
- No. 21 (figural motive of 10 notes and a rest; peculiar rhythm);
- No. 30 (figural motive of 3 or 4 notes; arpeggiated chords).
- **Beethoven,** Sonata op. 13, Adagio, measures 1–8 (figural motive of two notes, repeated).

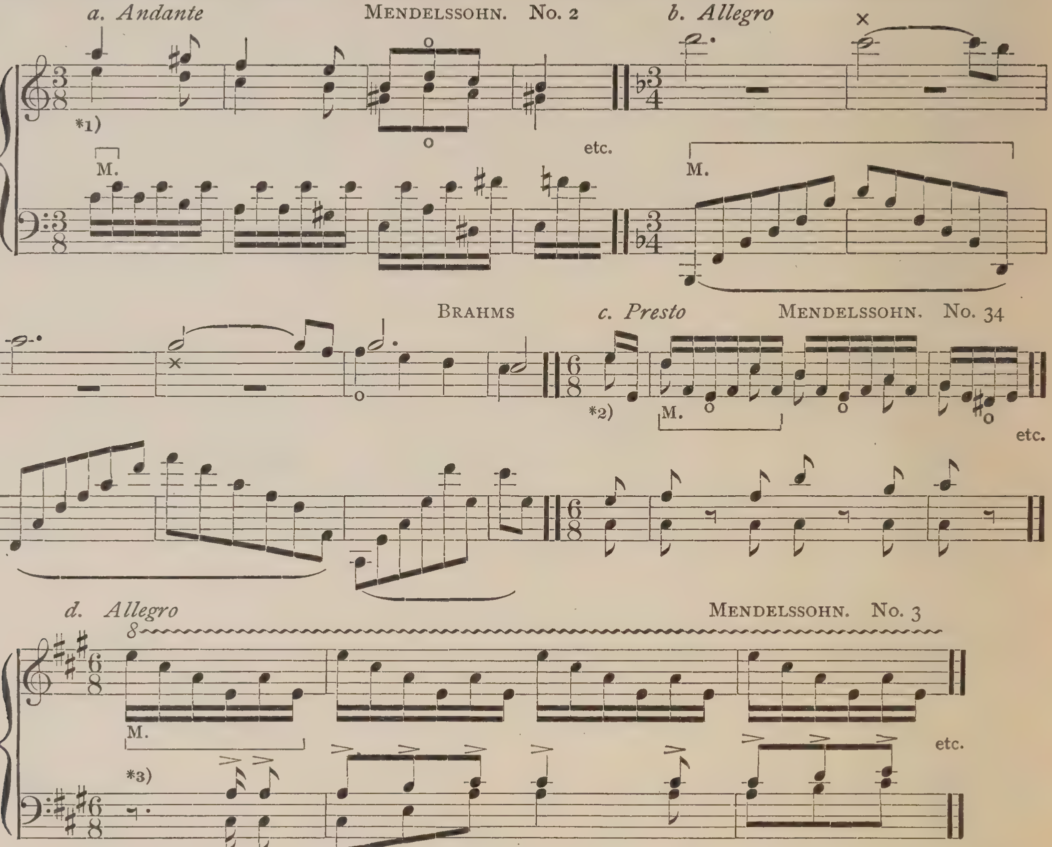
*1) Where the melody proper begins (meas. 7); and the same in the other examples.

447. *a.* But the figural part may also occupy the **lower register,** embracing the bass.

b. Or it may occupy the **upper register,** embracing the original melody.

c. Or it may occupy the **uppermost register, as accompaniment,** independent of the melody. The latter, in this case, will appear in an inner part, or, more rarely, in bass. For illustration:

Ex. 350.



*1) 447*a.* — *2) 447*b.* The added downward stems merely serve to mark the original melody, and do not constitute a separate part. The figural part *embraces* the melody. — *3) 447*c.* The melody lies in tenor, and, in playing, must be made prominent by accentuation.

See also: **Mendelssohn,** S. w. W. No. 18, measures 6–9, 14–17, etc.; No. 5, measures 19–22, 58–66.
Cramer, Études, Nos. 3, 9, 12, 74, 55, 51 (original *complete* edition).
Beethoven, Sonata op. 53, 1st mov't, measures 42–49.
Chopin, Prelude op. 28, No. 3; Nocturne op. 72, No. 1.

448. The figuration may, furthermore, be **transferred from one register to another.** This usually takes place at the beginning of a new phrase or section; but is also possible from one melodic member to another, or from measure to measure (or even from beat to beat).

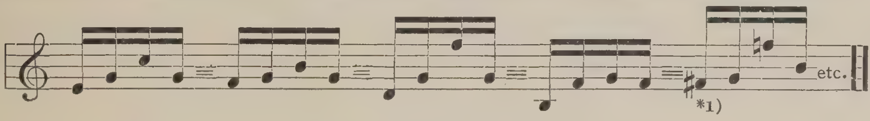
See **Mendelssohn,** S. w. W. Nos. 2, 5, 40; Prelude op. 35, No. 1.
Cramer, Études, Nos. 15, 38, 79, 52, 53.
Beethoven, op. 120, Var. 6 (26, 27).

HINTS AND DIRECTIONS.

449. The general requirements of a figural part may be defined as follows: it should *flow smoothly, in regular, uninterrupted rhythm;* it should be *symmetrical;* it must produce a *complete* harmonic impression, and must **sound well.** In detail, the following rules must be observed:

450. The figural motive is defined by the **direction** and **rhythm** in which the intervals succeed each other; not by the **size** of the intervals. The following figures all represent the same motive:

Ex. 351.

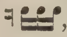


451. The motive adopted for the figuration at the outset should be **retained** throughout, or during a complete section of the piece, as strictly as the harmony will permit. The following exceptions are allowed, and are very common:

1. The **contrary motion** of the motive may be substituted. Ex. 327, Note *3).

2. **Fragments** of the motive may be used, instead of the whole, in case the original motive cannot conveniently be made to express the required harmony. This is usually necessary at *shorter* melody-notes, or at more *rapid changes* in the harmony.

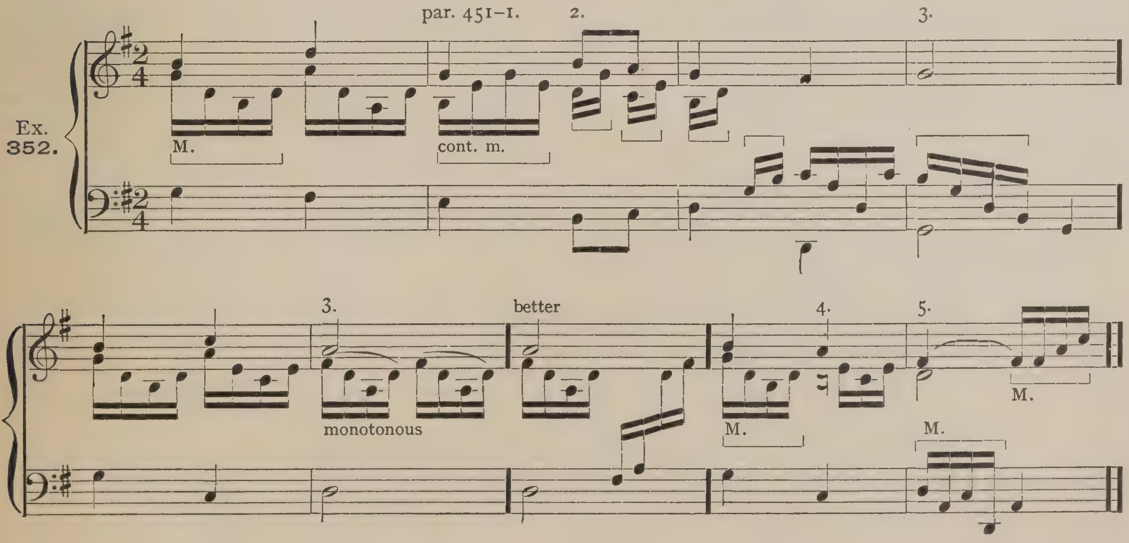
3. The motive may be **entirely changed** during any cadence, brief as well as final. It is well to do this, for the uniformity of the figure becomes too conspicuous and monotonous at pauses in the melody, and at the cadences.

4. A **rest** may be substituted for the *first* note of the motive, at any point, even if not a feature of the original figure; *e.g.*, , etc. Comp. par. 405*h*.

5. The motive may be changed upon *altering the register* (par. 448).

N.B. These changes should not affect the *rhythm of the motive.* See par. 454. For example:

Ex. 352.

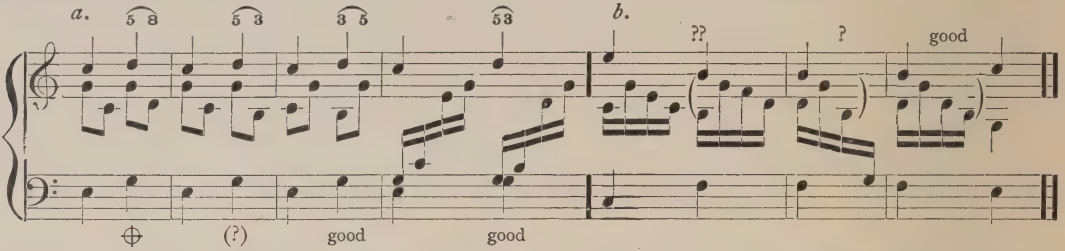


---

*1) Any *characteristic* feature which the adopted motive may contain should, however, be retained, — for instance, inharmonic notes, and recurrences.

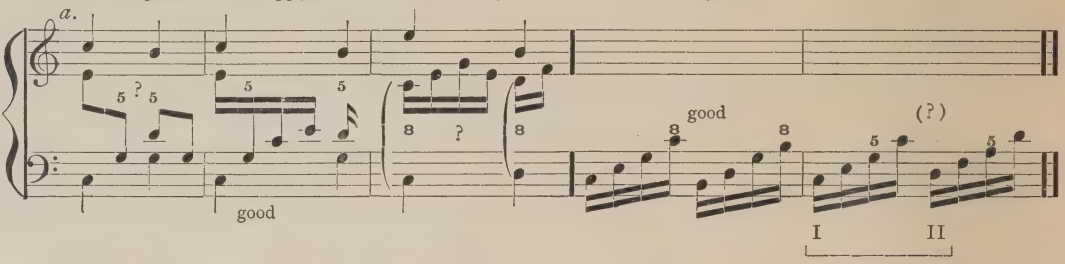
452. It is unwise to omit the chord-third, or to double sensitive tones *at the accents* or on accented fractions of beats, *although this may be done anywhere else*, especially in rapid tempo. The most sensitive tone is the *leading-tone*, and it is usually necessary to avoid its duplication, excepting on weak fractions of the beat. For illustration:

Ex. 353.

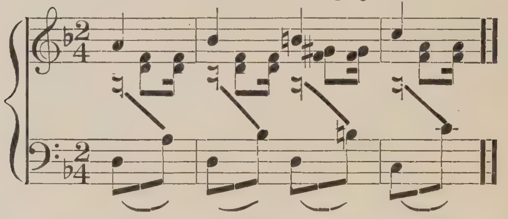


453. Successive 5ths or 8ves are not at all serious between the *figural part* and the melody or bass, as the dispersion of the chord generally conceals them (comp. par. 65*b*). As a rule, however, they should be avoided in *direct* succession. *Intentional* 8ve-parallels (Ex. 354*b*) are often extremely effective. For example:

Ex. 354.



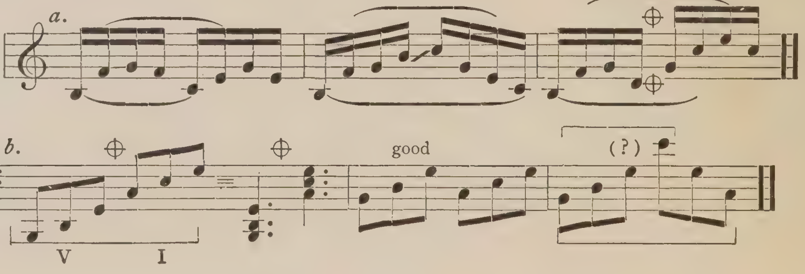
b. Mendelssohn, op. 54, Var. 11



454. The **rhythm** of the figural part *must not be interrupted or changed at rests, at the cadences*, nor in the *course* of the period.

455. As a rule, the broken chords (figural groups) should succeed each other just as the *unbroken* chords would. This is chiefly important in the *lower* (*bass*) *register*, where the rule of par. 28 is imperative; that is, the figure may continue in one direction *only as far as the chord extends;* when the chord changes, the figure (in bass) should change, at least briefly, its direction (Ex. 355*b*). For example:

Ex. 355.

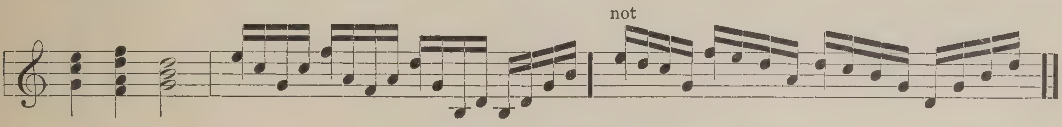


456. The registers. *a.* When the figuration is in the **middle** register, the outer parts may, if necessary, be transferred to a higher and lower octave, so as to avoid embarrassing the figural part. This may occur during any *complete member* of the melody, — not at *single* tones.

b. When the figuration is in the **lower** register, embracing the original bass part, care must be taken *to preserve the effect of the latter*, by using each separate bass tone as *lowest note of its figural group*, and generally, though not necessarily, as *first* note also.

c. When the figuration is in the **upper** register, embracing the original melody, each separate tone of the melody *must be distinctly heard as uppermost* (and almost always as *first*) note of its figural group; and their connection with each other as continuous "melody" must be made conspicuous by *isolating* them as much as convenient from the other (lower) tones of the figural motive; thus:

Ex. 356.



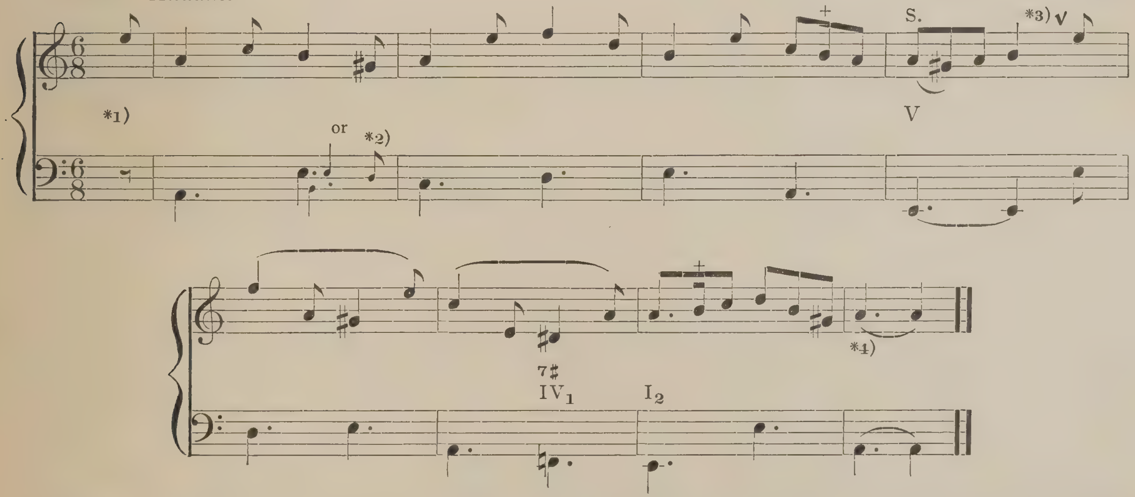
d. If, on the contrary, the figuration is in the **uppermost** register and does *not* embrace the melody, it must be kept so subordinate in its melodic character that it does not detract from the necessary prominence of the melody proper. See Ex. 350*d*.

457. It is important to recollect that whatever movements take place *within* the motive, being probably only "chord-repetition," are not subject to any other regulation than that of par. 451. The critical moment is, always, where the *chord changes*, *i.e.*, generally from the last tone of one group to the first tone of the next. At this moment the same rules apply, and the same care must be taken, as in ordinary progressions, — especially in bass (par. 455).

EXERCISE SEVENTY-FIVE.

Melodies, with given bass, to be elaborated with *harmonic figuration* as indicated below.

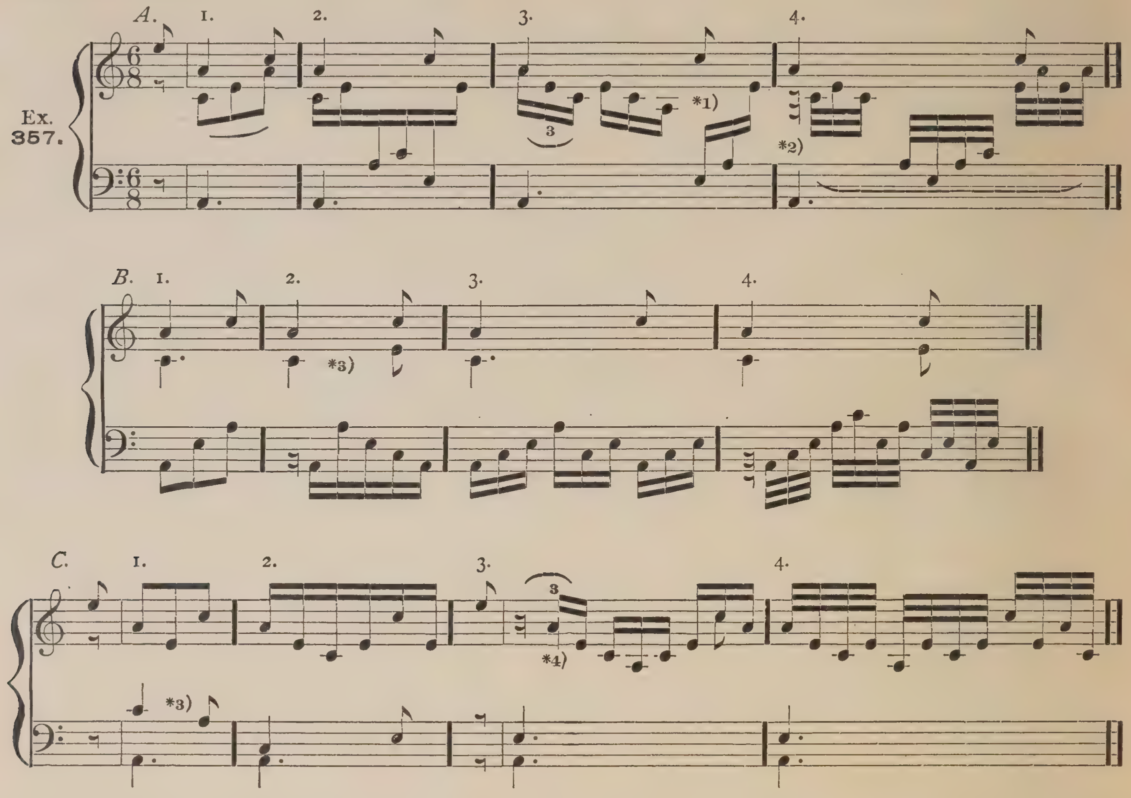
No. 1. *Andante*



*1) This first melody-note is not to be accompanied. — *2) The *seventh* may be added to the dominant chord, if necessary. In general, *the given bass* (*harmony*) *is not insisted upon.* —*3) Indicates the semicadence. — *4) The figural part runs on to the 4th beat.

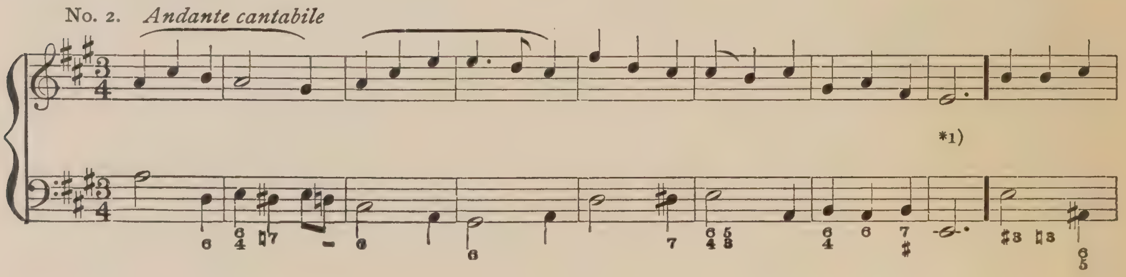
This melody is to be supplied with a figural part (3-part harmony) in the *middle*, *lower* and *upper register*, *in succession*, in rhythms of 1, 2, 3 and 4 notes to a beat (♪, 𝅘𝅥𝅯, 𝅘𝅥𝅯𝅘𝅥𝅯𝅘𝅥𝅯, 𝅘𝅥𝅰) successively, with the following motives (each model to be worked out *complete*):

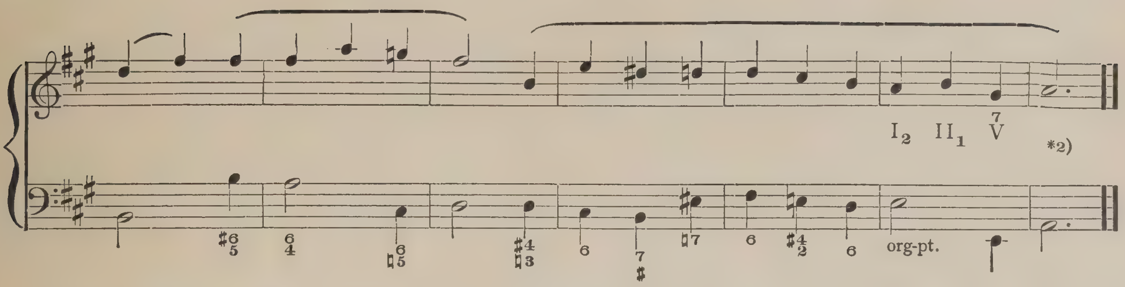
Ex. 357.



*1) Contrary motion of the adopted 3-tone motive. — *2) The motive may embrace *any number of notes*, in the adopted rhythm. — *3) The object of the inner part is, principally to assist in completing the harmony Its progressions are quite optional, but should be as *quiet* as possible. — *4) The original melody-notes as highest, but as *second*, note of the figural groups.

No. 2. *Andante cantabile*





*1) The figural part *must not stop* (par. 454). — *2) The figural part stops at the second beat.

To be elaborated similar to No. 1, with original motives:

a. in the middle register (figural rhythm either 8ths, 8th-triplets, 16ths, or 16th-sextolets).

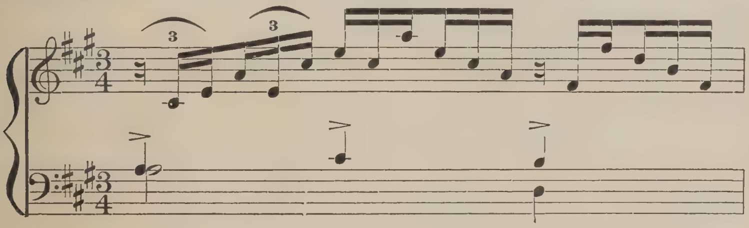
b. in the lower register, rhythm of 2, 3, 4 or 6 notes, at option.

c. in the upper register, rhythm optional.

d. in *alternating registers* in 𝅘𝅥𝅮-notes, transferring the figural part at discretion: say first after 4 measures, then again 4, then 2, and 2, and finally at each single measure.

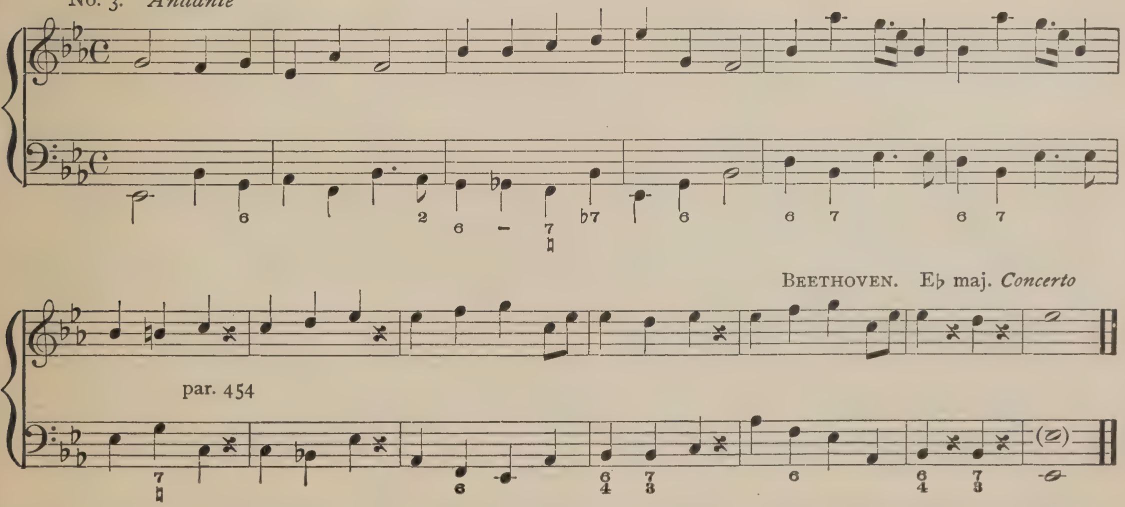
e. in the *uppermost* register as accompaniment, the melody in *tenor*, as follows:

Ex. 358.



etc. (Motive of one whole measure.)

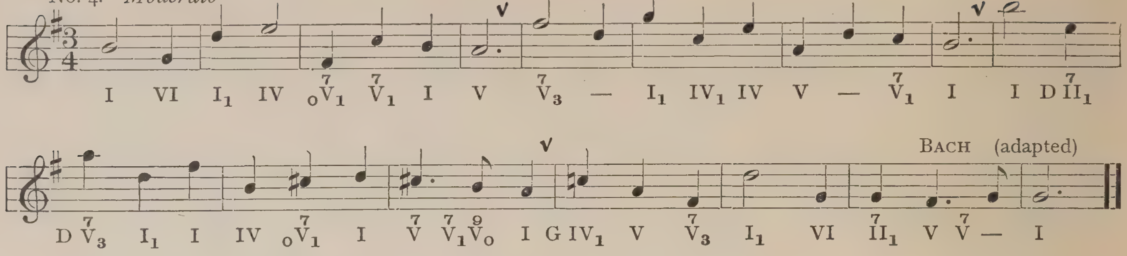
No. 3. *Andante*



BEETHOVEN. E♭ maj. *Concerto*

To be elaborated similar to No. 1, in the middle, lower, and upper registers, and in *alternating registers*, in rhythms of 3, and 4, notes to a beat.

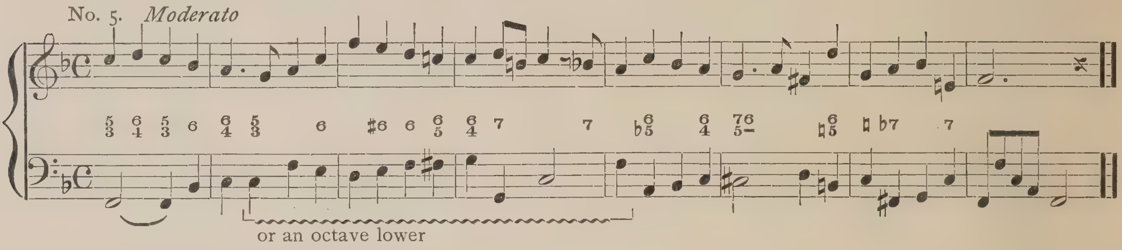
No. 4.


Moderato
I VI I1 IV oV1 V1 I V V3 — I1 IV1 IV V — V1 I I D II1
D V3 I1 I IV oV1 I V V1 V0 I G IV1 V V3 I1 VI II1 V V — I
Bach (adapted)

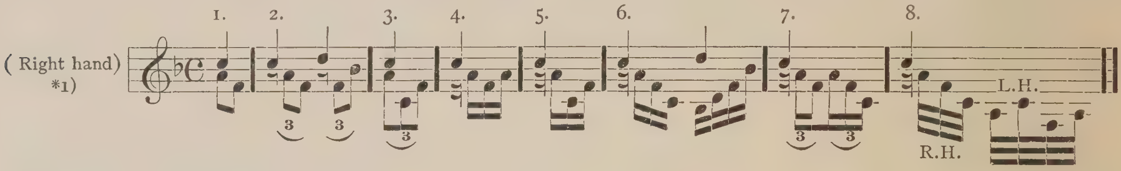
Similar to No. 3, in rhythms of 3, and 4, notes to a beat.

The following simple period:

No. 5.


Moderato
or an octave lower

is to be elaborated with harmonic figuration **at the piano**, at sight, in the following modes, successively:


1. 2. 3. 4. 5. 6. 7. 8.
(Right hand) *1)
L.H.
R.H.

*1) The left hand retains the given bass.

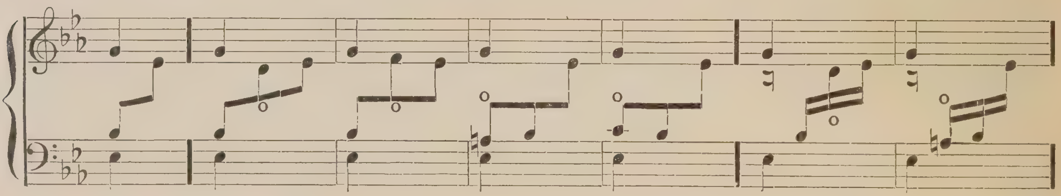
Melodic (or Mixed) Figuration.

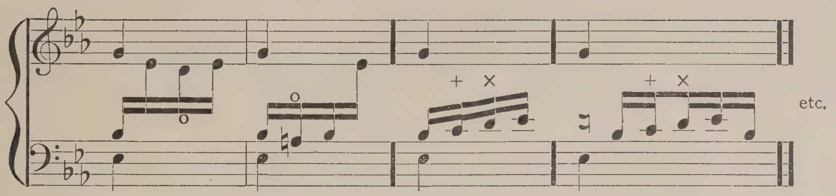
458. *a.* Inharmonic notes may be interspersed between the harmonic tones, either *casually*, to facilitate the movement of the figural part, or *essentially*, as a feature of the motive itself.

b. It is most convenient to use *simple neighboring-notes* (local embellishment of any of the principal tones of the original motive). *Passing-notes* are more smooth, and more valuable, but embarrassing, because their use is dependent upon the size of the interval.

Applied to Ex. 347, No. 2, the result might be:

Ex. 359.

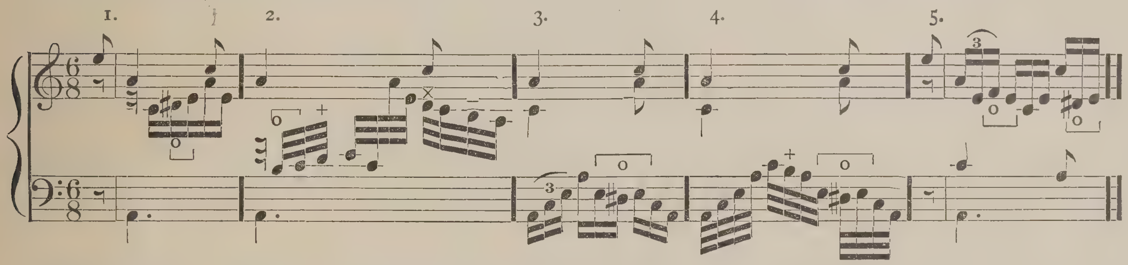




See **Chopin,** Prelude, op. 28, No. 13.

EXERCISE SEVENTY-SIX.

A. Melody No. 1 of Exercise 75, to be elaborated with *melodic figuration* according to the following models:



And finally, two or three times in *alternating registers,* in rhythms of 3 and 4 notes to a beat, with original motives.

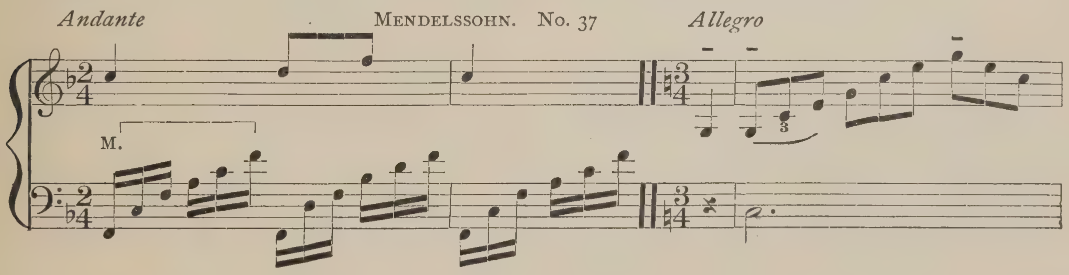
B. Melody No. 2 of Exercise 75, to be elaborated successively in the middle, lower and upper registers, and finally in *alternating registers,* in optional rhythms, with original motive, as above.

TWO-PART FIGURATION.

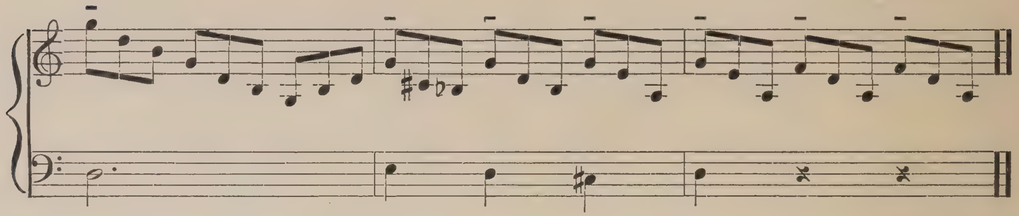
459. In the absence of an inner part, the number of parts is reduced to two. In order to avoid meagre effects, the motives are generally more copious, and more rapid, than in 3-part figuration.

For example:

Ex. 360.



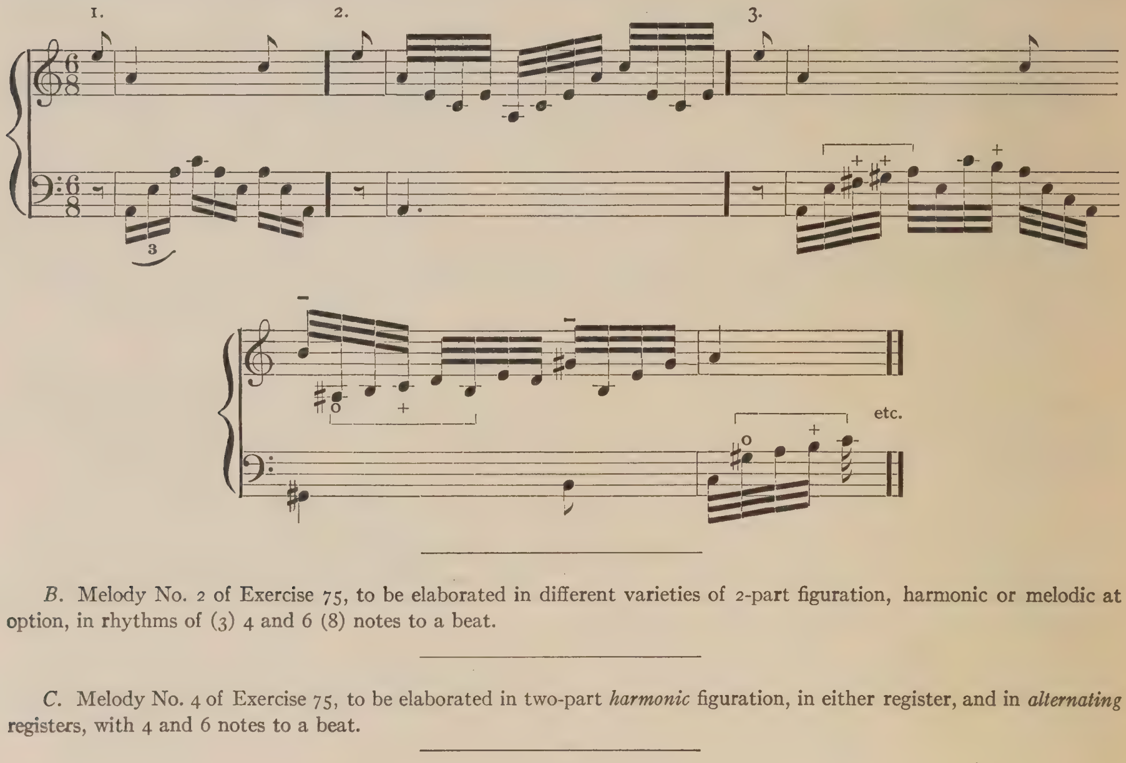
BEETHOVEN



See also: **Mendelssohn,** S. w. W. Nos. 11 (measures 1–8), 25, 31, 37; Prelude op. 35, No. 1.
Cramer, Études 21, 24, 27, 31, 46, 62, 77.
Schumann, "Albumblätter," op. 124, Nos. 6 and 16.
Chopin, Prelude op. 28, No. 24; Nocturnes: op. 9, Nos. 1 and 3; op. 27, Nos. 1 and 2; op. 48, No. 2; op. 55, No. 2.

EXERCISE SEVENTY-SEVEN.

A. Melody No. 1 of Exercise 75, to be elaborated as follows:



B. Melody No. 2 of Exercise 75, to be elaborated in different varieties of 2-part figuration, harmonic or melodic at option, in rhythms of (3) 4 and 6 (8) notes to a beat.

C. Melody No. 4 of Exercise 75, to be elaborated in two-part *harmonic* figuration, in either register, and in *alternating* registers, with 4 and 6 notes to a beat.

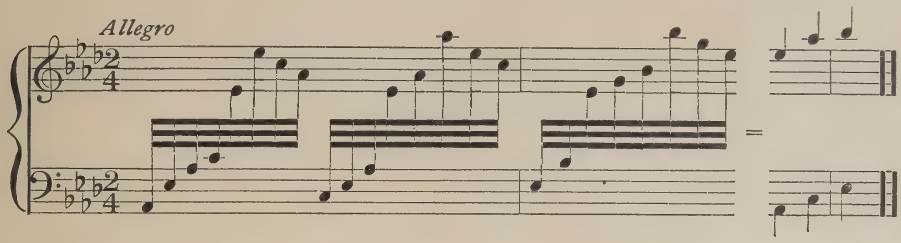
ONE-PART FIGURATION.

460. Finally, all the parts together may be merged in **one figural part,** embracing the original melody and bass as *highest* and *lowest* notes (but *not necessarily as first notes*) of each group.

The motives are almost always copious and rapid. The figuration is apparently thrown from one register to another uninterruptedly; or it consists of continuous groups, extending throughout the space included between the melody and bass. For example:

CZERNY. Op. 740, No. 6

Ex. 361.

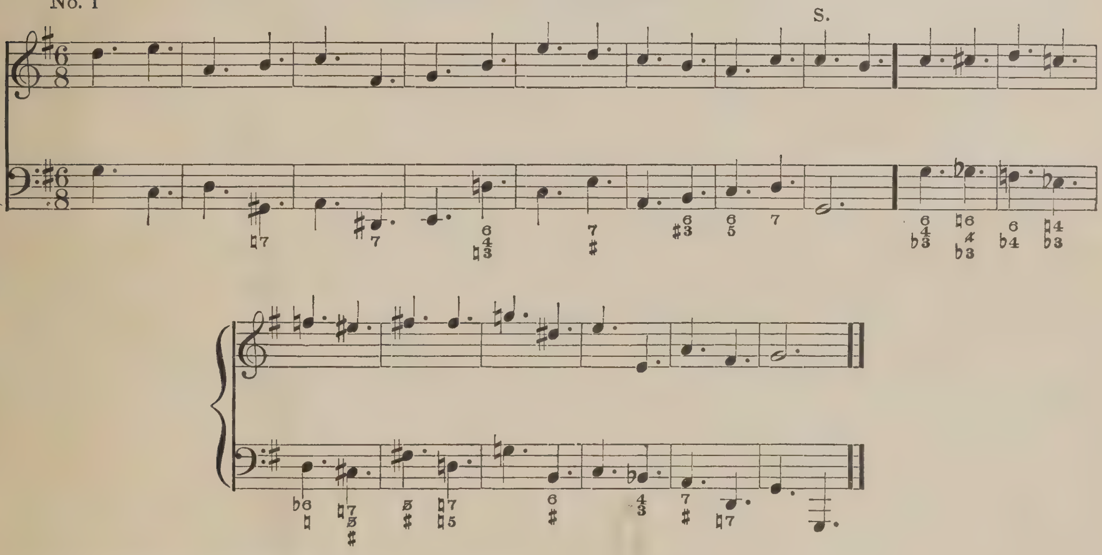


See also No. 18 of this collection of **Czerny**

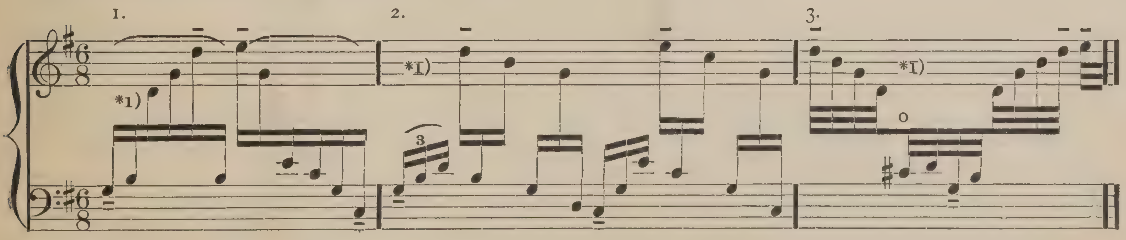
See **Mendelssohn,** Caprice op. 33, No. 1, measures 1–6.
Cramer, Étude 33.

EXERCISE SEVENTY-EIGHT.

No. 1

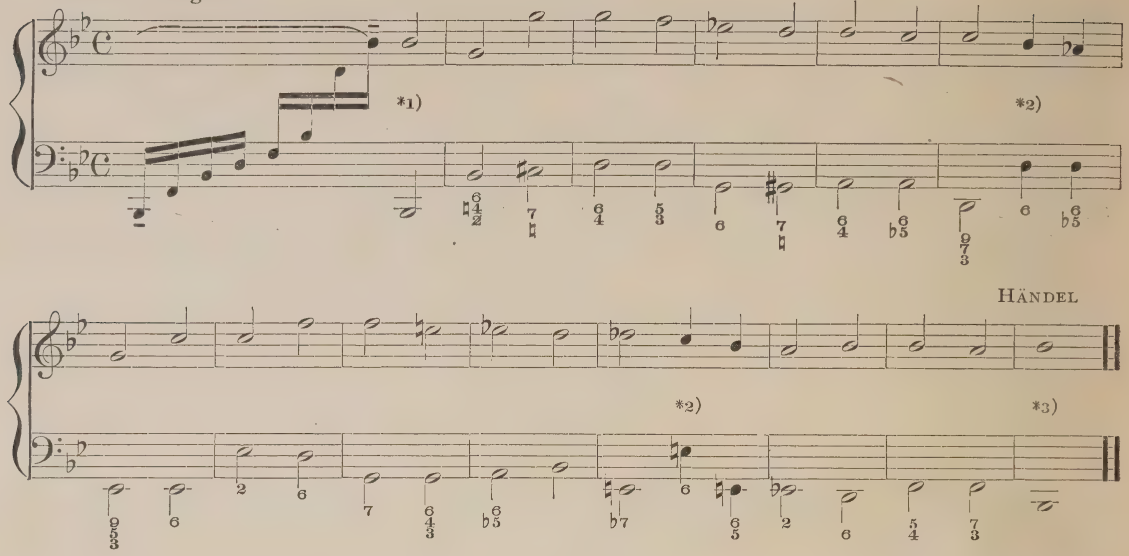


To be elaborated with one-part figuration, as follows:



*1) The characteristic features of these motives must be strictly adhered to.

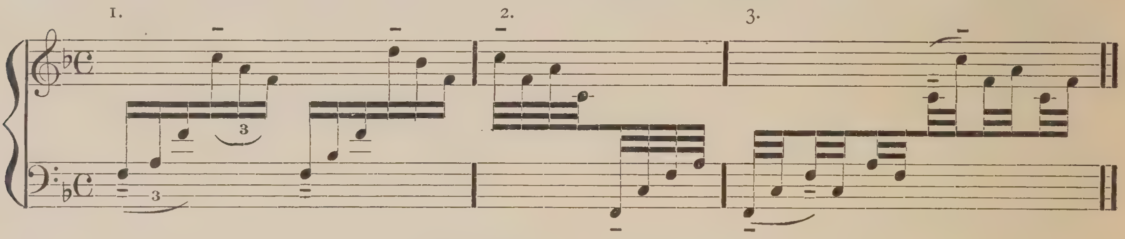
No. 2. *Allegro*



HÄNDEL

*1) Continue in the manner indicated in the first half of the measure. — *2) The 2nd half of the motive, twice. — *3) End figural rhythm on 3rd beat. — This exercise may also be made **at the piano,** with other (original) motives.

No. 3. The 5th melody of Exercise 75 is to be elaborated **at the piano,** in the following ways:



461. On the other hand, the figural part may be accompanied by three or even more harmonic parts; in this case the motive is likely to be shorter and more narrow than in three-part figuration.

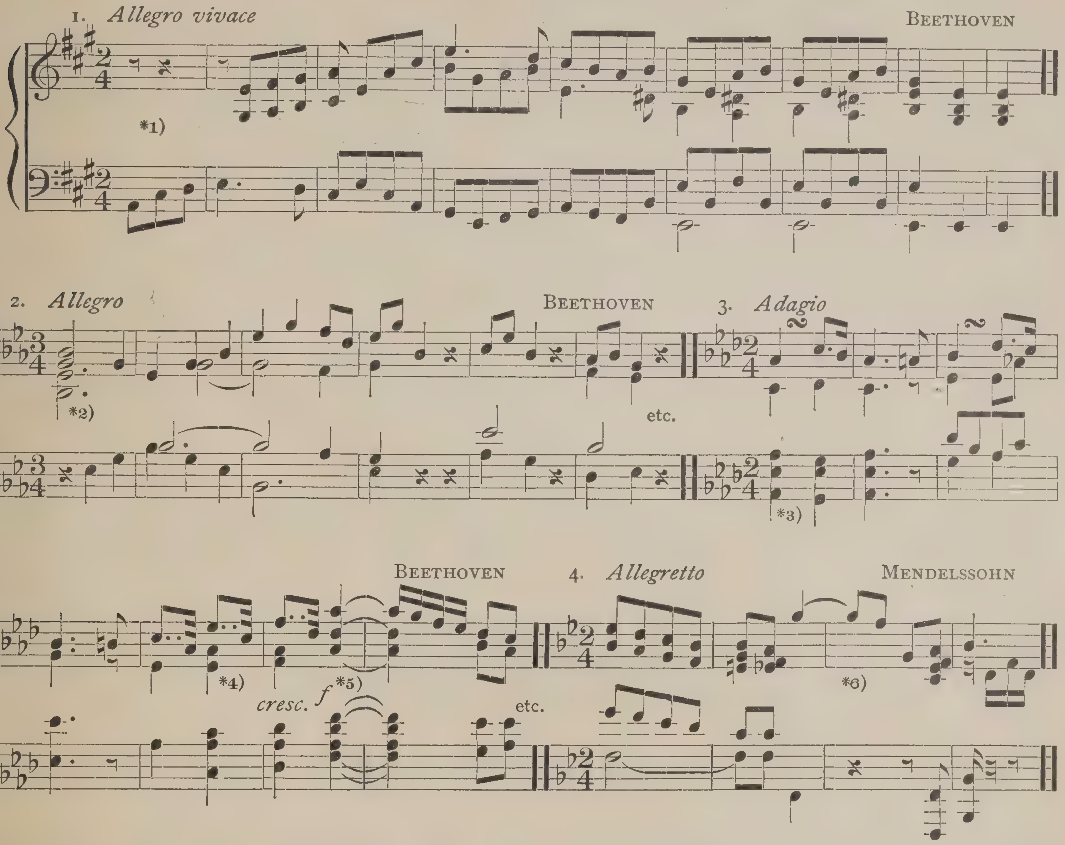
See **Cramer:** Études 10, 18, 25, 28, 36, 40, 56, 80, 82.
Mendelssohn: S. w. W. No. 11, second Part (*i.e.*, after the 2nd double-bar); No. 21.

IRREGULAR PART-WRITING.

462. In music that is designed for the **keyboard,** rather than for a definite number of vocal or instrumental parts, *the volume of harmony may be increased or decreased with the utmost freedom, at single points, or during certain members of the phrase.*

Such alterations in the volume of harmony should be made with some regard to the principle of tone-lines, and not in such a way as to produce an uneven and formless result. Therefore, when a fundamental part is temporarily omitted, it is usually necessary to introduce rests in its place, especially when the omissions are *brief.* Additions generally result from the octave-duplication of a fundamental part (most commonly the soprano or bass); though the increase in volume may also occur at single points, as if an inner part had separated into two or more, for the moment. *When the time-values are alike,* any number of notes may be placed upon *one stem,* — never, however, when the time-values differ. For illustration:

Ex. 362.



*1) First one part (line), then three, then two, — finally five. Note the manner in which the notes of equal time-values are stemmed together. — *2) First five, then three, then four, three, and again four, parts. — *3) The bass is duplicated in the upper octave, almost throughout. — *4) Here the soprano is duplicated. — *5) Increase of volume to seven parts. — *6) Decrease of volume from four (and five) to one part. Note the rests.

See also: **Bach,** Well-tempered Clavichord, Book I, Prelude 22 (*b*♭ minor).

Mendelssohn, Songs w. Words, No. 2, measures 2, 3; No. 11, measures 1, 9, 10, 12, 16, 17, 20, etc.

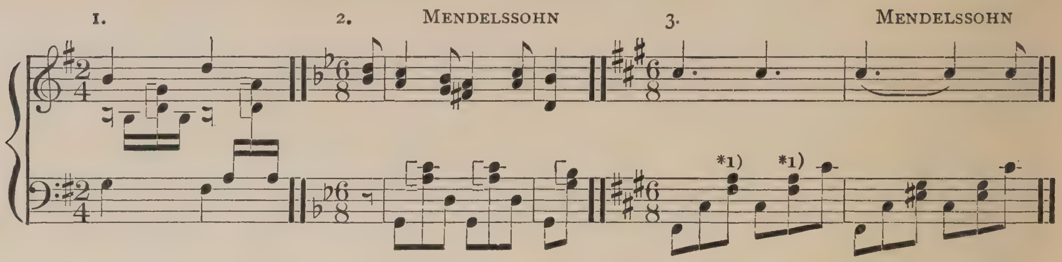
In **Beethoven,** Sonata op. 14, No. 2, *Andante,* on the contrary, the fundamental four parts are retained throughout the Theme, with but few additions or reductions.

FIGURAL MOTIVES WITH SUPPLEMENTARY TONES.

463. *a.* Upon this same principle figural motives may be made, in which certain intervals are furnished with one or more harmonic supplementary tones (or twin-notes, as they might be called).

b. The twin-notes should occur as a rule at the *corresponding place* in each group. Still, unique effects are sometimes produced by an irregular disposition of the supplementary tones. For illustration:

Ex. 363.



*1) The twin-notes occupy *different* places in the groups. In Nos. 1 and 2 they are regular.

See **Mendelssohn,** S. w. W. Nos. 6, 12, 13, 29.

Cramer, Études 17, 58, 60, 76, 78.

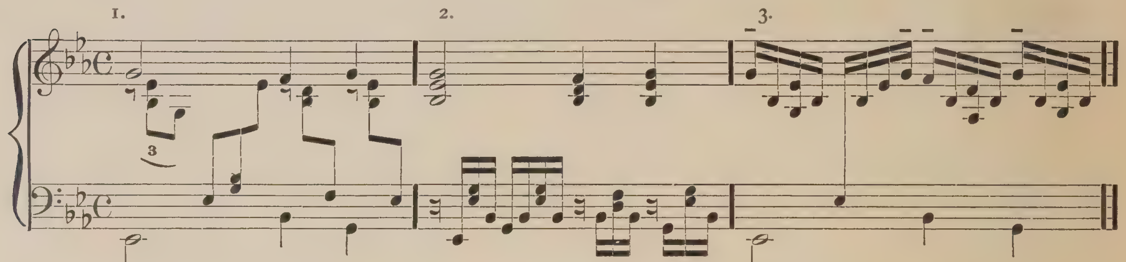
Chopin, Ballade op. 38, 2nd section; Nocturnes: op. 9, No. 2; op. 15, Nos. 2 and 3; op. 32, No. 2; and op. 48, No. 1; Études op. 25, Nos. 3, 4, 5 (especially the middle section), 9.

Beethoven, Sonata op. 2, No. 3, last movement, measures 29, etc.

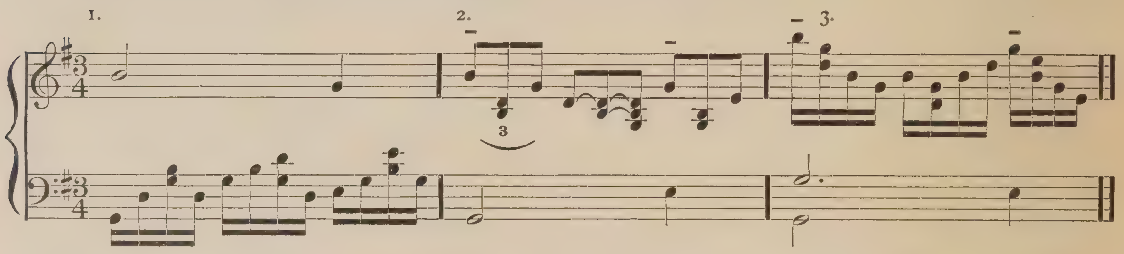
Henselt, Études op. 5, No. 2, No. 10 (middle section).

EXERCISE SEVENTY-NINE.

A. Melody No. 3 of Exercise 75, to be elaborated with the following motives:



B. Melody No. 4 of Exercise 75, to be elaborated with the following motives:

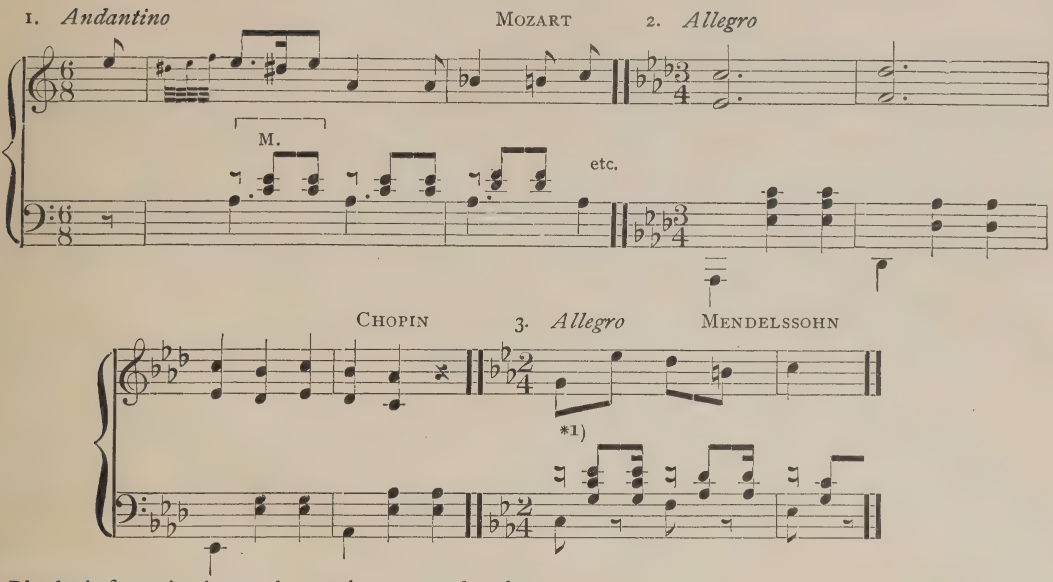


To this the pupil may add an elaboration with original motives, in *alternating registers.*

RHYTHMIC FIGURATION.

464. When the figural motive consists entirely, or in part, of *repeated notes*, the figuration may be termed **rhythmic,** in distinction to pure harmonic, or melodic figuration. In such cases, the casual (or constant) enlargement of the motive by means of supplementary notes is more natural and necessary than in the other species of figuration. For example:

Ex. 364.



*1) Rhythmic figuration is very frequently *syncopated*, as here.

See also: **Mendelssohn,** S. w. W. Nos. 10, 14, 20, 26, 39, 8, 22, 27, 33, 24, 36. — Op. 54, Var. 12. — Op. 82, Var. 3.
Cramer, Étude 52.
Chopin, Nocturne op. 15, No. 1; Preludes, op. 28, Nos. 17 and 15.
Beethoven, Sonata op. 22, second mov't; op. 7, first four measures; op. 14, No. 1, first mov't, last 15 meas.

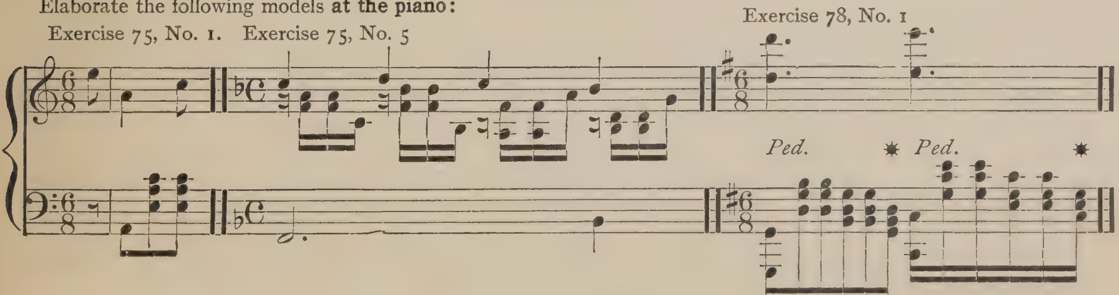
465. The reason for designating this species "rhythmic" figuration is very plain. Not the chords themselves, but the "rhythm" is broken. The "motives" in rhythmic figuration (if they may be so called), are all exactly or nearly alike in form. The difference lies in the *effect* the various styles produce, and this depends solely upon the rapidity of the reiterations, *i.e.*, upon the **tempo** of the rhythmic figure. Compare, for instance, **Mendelssohn's** Song without Words No. 10, with No. 22.

With what striking effect rhythmic figuration *in slow tempo* may be used (especially in the low registers) will be seen in **Bach,** St. Matthew Passion, Edition Schirmer, pages 44, 53, 128 etc., — in each instance the bass part; page 195, upper part. — Well-tempered Clavichord, Book I, Preludes 8, 22; Book II, Prelude 3. — **Brahms,** 1st Symphony (*c* minor), Introduction to 1st movement (bass).

In rapid tempo: **Rubinstein,** Étude, op. 23, No. 2; **Wagner,** "Flying Dutchman," closing Chorus in No. 4 (2nd Act).
In moderate tempo: **Beethoven,** 8th Sym., *Allegretto scherzando.*

EXERCISE EIGHTY.

Elaborate the following models **at the piano:**



Double, Compound and Complex Figuration.

466. In **double figuration** there are **two figural parts** (usually representing adjacent voices, but sometimes separated by one or more harmonic parts), which operate in concert throughout the whole, or certain sections of the piece, and employ the *same* motive, or *different* motives. This mode of employing simultaneous figural parts must not be confounded with *alternating* registers, which it may sometimes resemble in effect, but from which it always essentially differs.

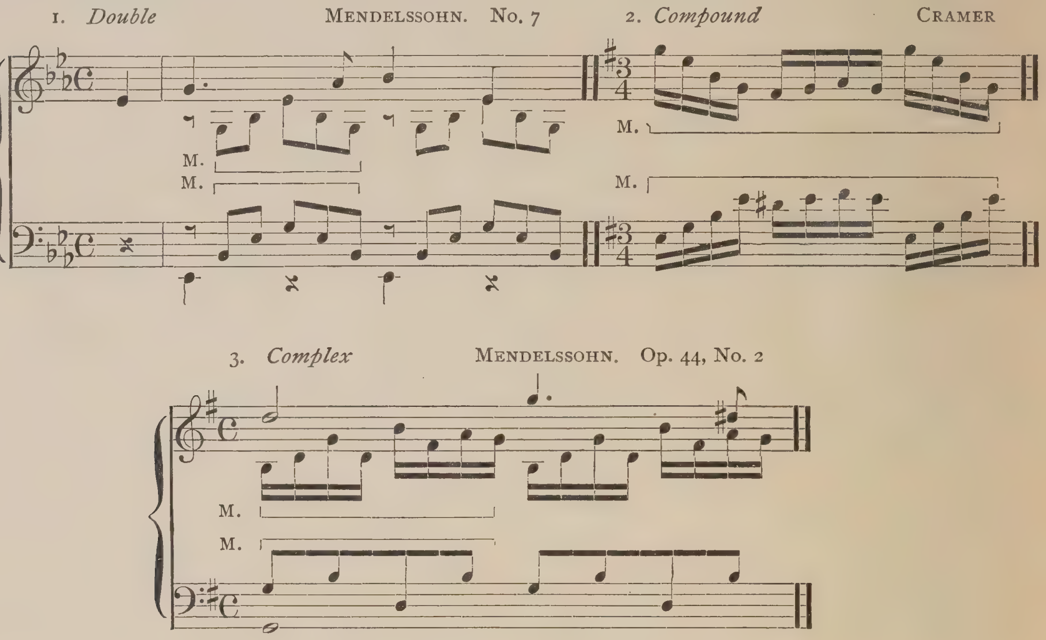
467. The distinction between double, compound, and complex Figuration is as follows:

Double, when the melody and rhythm of the figural motives are alike, the figural parts generally running parallel, as simple duplication in 3rds or 6ths (along the chord-line);

Compound, when the rhythm of the motives is the same, but the *melody different;*

Complex, when the *rhythms are different.* For example:

Ex. 365.


1. *Double* Mendelssohn. No. 7
2. *Compound* Cramer
3. *Complex* Mendelssohn. Op. 44, No. 2

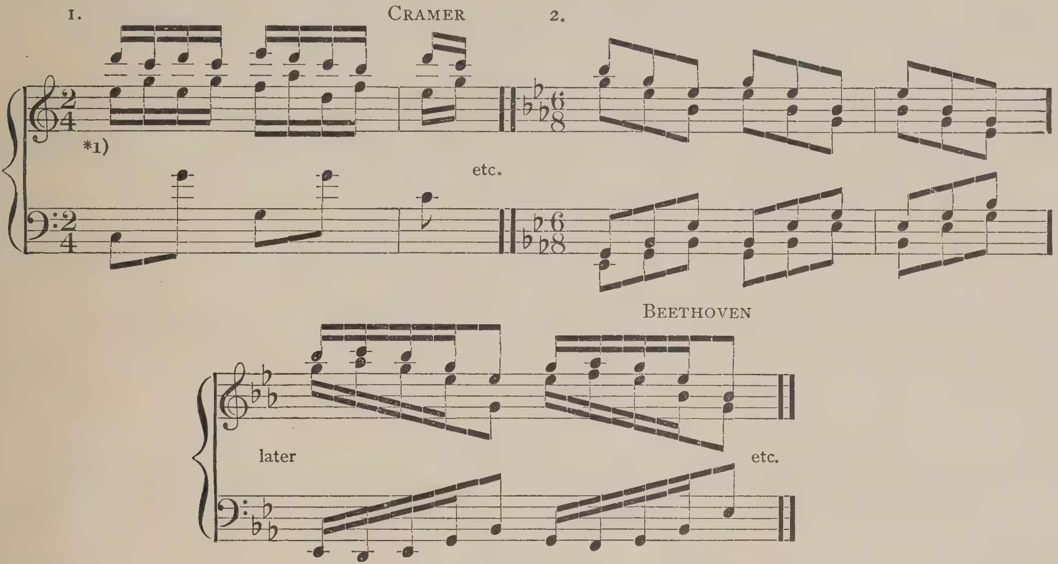
Of these three varieties of duplicated figuration, the "complex" is no doubt the most common and effective. Comp. par. 405*j*. See also:

Double Figuration: **Mendelssohn,** S. w. W. Nos. 7, 32, 42;
  Cramer, Études 7, 19, 20, 22, 35 (at times compound), 48, 50, 54, 61, 63, 73, 81, 83;
  Chopin, Prelude op. 28, No. 14; Étude op. 25, No. 12;
  Beethoven, Sonata op. 7, third mov't, "Minore."
Compound Figuration: **Cramer,** Études 42, 59, 65;
  Chopin, Preludes op. 28, Nos. 2, 5, 11, 19, 21; Étude op. 25, No. 1.
Complex Figuration: **Mendelssohn,** S. w. W. No. 13, (24);
  Cramer, Études 5, 8, 21, 31, 36, 38, 46, 79;
  Chopin, Prelude No. 8; Études op. 25, Nos. 2, 9. — Études for the "Moscheles Method," Nos. 1 and 2. — Fantasie-Impromptu op. 66.

Triple and Quadruple Figuration.

468. Triple or **Quadruple** figuration is of comparatively rare occurrence in pianoforte music, but not uncommon in orchestral or chamber music. For illustration:

Ex. 366.

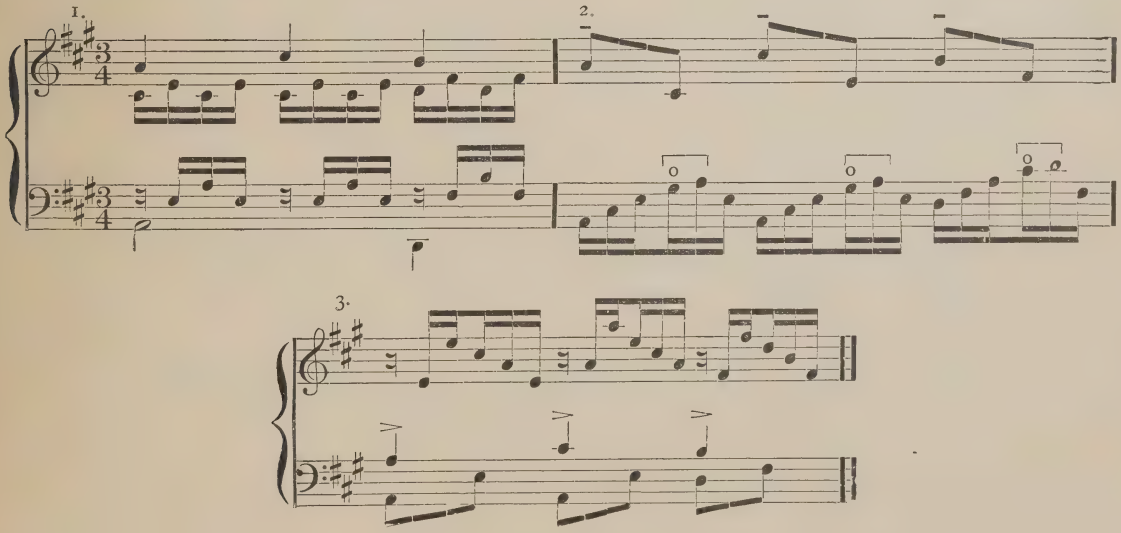


*1) Melodic fig. in the upper part, harmonic fig. in the inner and lower parts.

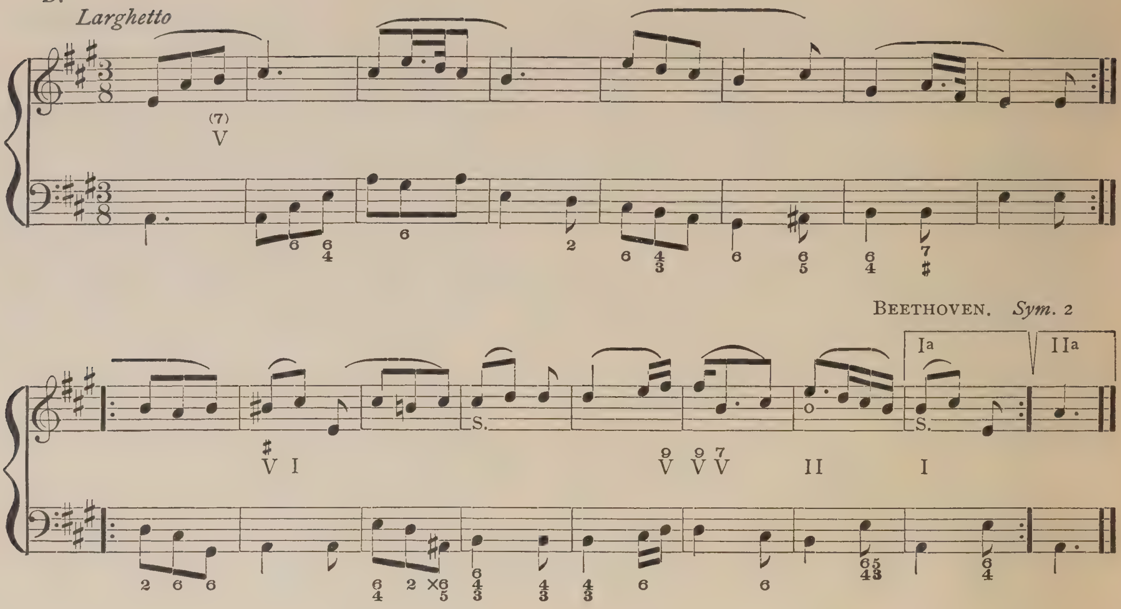
See **Chopin:** Études op. 25, Nos. 3, 6, and 8.
Études for the "Moscheles Method," No. 3. — **Cramer,** Études 29, 70.

EXERCISE EIGHTY-ONE.

A. Melody No. 2 of Exercise 75, as follows:

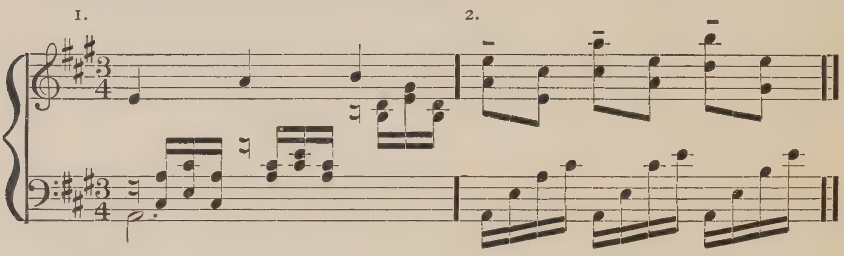


B.


Larghetto
(7)
V
♯
V I
9 9 7
V V V
II
I
S.
o
S.
Ia
IIa

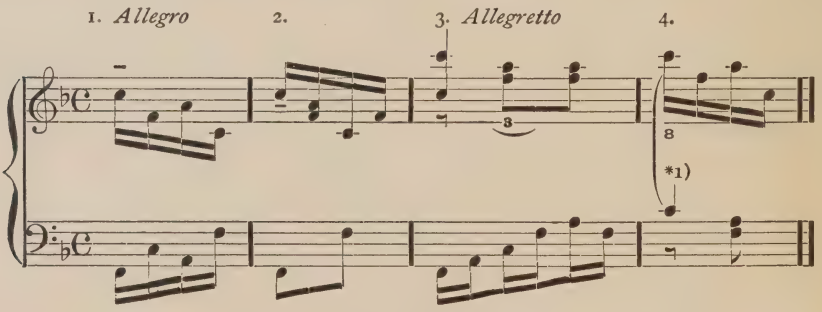
BEETHOVEN. *Sym.* 2

To be elaborated as follows (in $\frac{3}{4}$ measure):



And also in other ways, with original motives.

C. Melody No. 5 of Exercise 75, **at the piano,** as follows:


1. Allegro
2.
3. Allegretto
4.
3
8
*1)

*1) Melody in tenor, and doubled throughout in the uppermost line. Comp. Ex. 354*b*.

PARAPHRASING; OR SIMPLE VARIATION.

469. By "paraphrasing" is meant, the elaboration of a given brief theme (8–16 measures) in the manner of *very simple variations*, without altering any essential feature of the theme, but only the style. The best illustrations will be found in **Mozart,** pianoforte Sonata No. XII, Schirmer ed. (2nd movement); in the Chaconnes of **Händel;** and in the simpler variations of **Beethoven** (*e.g.*, 13 Variations in A; 9 Var. in C minor; 6 Var. in F major; 9 Var. in A; 8 Var. in C; etc.) **These very themes may be utilized,** after or before being analyzed.

Leading points and suggestions: (1) The rhythm (elaboration in a rhythm of 2, 3 or 4 notes to an original beat). — (2) Location of the rhythmic figure (figural sopr., or bass, or inner part; alternating parts; running voice). — (3) The melody retained nearly or quite intact and the harmony changed, or *vice versa*. — (4) The register of the melody (melody transferred to a higher or lower octave, or to another part; transferred entire, or in sections). — (5) Change of mode (major to minor, or *vice versa*). — (6) Change of rhythm or of measure (from duple to triple, or *vice versa*).

the L^{7}_{3} ($\underline{\text{VII}}^{6}$) may appear with one voice first doubling chord fifth and the skipping to double chord third (bass! or vice versa

---

see p. 83. about $\underline{\text{V}}7$ with doubled 7th.

UTL AT DOWNSVIEW
D RANGE BAY SHLF POS ITEM C
39 12 05 19 05 015 8